IN THE UNITED STATES DISTRICT COURT
FOR THE SOUTHERN DISTRICT OF TEXAS
HOUSTON DIVISION

EXXON MOBIL CORPORATION, Plaintiff, v. UNITED STATES OF AMERICA, Defendant.	)	Civil Action Nos. H-10-2386 (LHR) H-11-1814 (LHR)

PLAINTIFF EXXON MOBIL CORPORATION'S MEMORANDUM IN SUPPORT OF ITS MOTION FOR PARTIAL SUMMARY JUDGMENT AS TO PHASE 2 COST AND ALLOCATION ISSUES

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1		Declaration of Richard L. White	White Decl.
1	A	Resume	Resume
1	B	Expert Report of Richard L. White (June 2012)	White 2012 Rpt.
1	C	Supplemental Expert Report of Richard L. White (Jan. 2017)	White 2017 Supp. Rpt.
1	D	Expert Rebuttal Report of Richard L. White (Dec. 2012)	White 2012 Rebuttal Rpt.
2		Declaration of Gregory G. Kipp	Kipp Decl.
2	A	Resume	Resume
2	B	Expert Report of Gregory G. Kipp (June 2016)	Kipp 2016 Rpt.
2	C	Supplemental Expert Report of Gregory G. Kipp (Dec. 2016)	Kipp 2016 Supp. Rpt.
3		Declaration of Paul S. Ficca	Ficca Decl.
3	A	Resume	Resume
3	B	Expert Report of Paul S. Ficca (June 2016)	Ficca 2016 Rpt.
3	C	Expert Rebuttal Report of Paul S. Ficca (Sept. 2016)	Ficca 2016 Rebuttal Rpt.
3	D	Supplemental Expert Report of Paul S. Ficca (Jan. 2017)	Ficca 2017 Supp. Rpt.
4		Declaration of Stephen Johnson	S. Johnson Decl.
4	A	Resume	Resume
4	B	Expert Report of Stephen Johnson (Nov. 2014)	S. Johnson 2014 Rpt.
4	C	Expert Report of Stephen Johnson (May 2016)	S. Johnson 2016 Rpt.

Ex. #	Att. #	Document Name	Short Citation (citation used in text)
4	D	Expert Rebuttal Report of Stephen Johnson (Mar. 2017)	S. Johnson 2017 Rebuttal Rpt.
5		Declaration of John M. Beath	Beath Decl.
5	A	Resume	Resume
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5	C	Supplemental Expert Report of John M. Beath (Nov. 2014)	Beath 2014 Supp. Rpt.
6		Declaration of A.J. Gravel	Gravel Decl.
6	A	Resume	Resume
6	B	Expert Report of A.J. Gravel (June 2012)	Gravel 2012 Rpt.
6	C	Expert Rebuttal Report of A.J. Gravel (Dec. 2012)	Gravel 2012 Rebuttal Rpt.
6	D	Supplemental Expert Report of A.J. Gravel (Nov. 2014)	Gravel 2014 Supp. Rpt.
7		Declaration of Wayne Grip	Grip Decl.
7	A	Resume	Resume
7	B	Expert Rebuttal Report of Wayne Grip (Dec. 2012)	Grip 2012 Rebuttal Rpt.
8		Declaration of Jere M. Johnson	J. Johnson Decl.
8	A	Resume	Resume
8	B	Expert Report of Jere M. Johnson (June 2012)	J. Johnson 2012 Rpt.
8	C	Expert Rebuttal Report of Jere M. Johnson (Dec. 2012)	J. Johnson 2012 Rebuttal Rpt.
9		Declaration of David M. Lerman	Lerman Decl.
9	A	Resume	Resume

Ex. #	**Att. #**	**Document Name**	**Short Citation (citation used in text)**
9	B	Expert Report of David M. Lerman (Sept. 2015)	Lerman 2015 Rpt.
10		Declaration of Leon Paredes	Paredes Decl.
11		Declaration of Peter Gagnon	Gagnon Decl.
11	A	Resume	Resume
11	B	Expert Rebuttal Report of Peter Gagnon (Dec. 2012)	Gagnon 2012 Rebuttal Rpt.
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13		National Oil and Hazardous Substances Contingency Plan, 47 Fed. Reg. 31,180 (July 16, 1982)	1982 NCP
14		National Oil and Hazardous Substances Pollution Contingency Plan, 50 Fed. Reg. 47,912 (Nov. 20, 1985)	1985 NCP
15		Memorandum from Stephen Luftig, Director, EPA Office of Emergency and Remedial Response to EPA Regions I-X, Use of Non-Time Critical Removal Authority in Superfund Response Actions (Feb. 14, 2000)	EPA Removal Guidance
16		United States' summary judgment brief in the case of *United States v. Mountain Metals Co.* (N.D. Ala. filed June 13, 2000)	U.S. *Mountain Metals* SJ Brief
17		Memorandum from Steven A. Herman, Assistant Administrator, EPA Office of Enforcement and Compliance Assurance, and Elliott P. Laws, Assistant Administrator, EPA Office of Solid Waste and Emergency Response to EPA Regions I-X, Coordination between RCRA Corrective Action and Closure and CERCLA Site Activities (Sept. 24, 1996)	RCRA-CERCLA Parity Guidance
18		Expert Rebuttal Report of Alborz A. Wozniak (Feb. 2017)	Wozniak 2017 Rpt.

Ex. #	Att. #	Document Name	Short Citation (citation used in text)
19		Expert Report of James R. Kittrell, Ph.D. (Sept. 2016)	Kittrell 2016 Rpt.
20		Expert Rebuttal Report of James R. Kittrell, Ph.D. (Jan. 2017)	Kittrell 2017 Rebuttal Rpt.

INTRODUCTION

Exxon Mobil Corporation ("Exxon") seeks cost recovery from the U.S. Government in connection with contamination arising from the Government's wartime activities at two Exxon facilities: the Baytown refinery and chemical plant, including the adjacent water bodies (collectively, the "Baytown Facility" or "Baytown Site") and the Baton Rouge refinery and chemical plant, including the adjacent water bodies (collectively, the "Baton Rouge Facility" or "Baton Rouge Site"). PF ¶¶ 1, 5. While Exxon and its predecessors owned and operated each Facility, there was a significant period of time from 1941 to 1955 or thereabouts where the United States owned many of the plants at both Facilities and also substantially controlled overall production and related operations at both Facilities. In fact, the Government specifically sited various Government-owned production plants at both Facilities in order take advantage of each Facility's existing capacity and achieve maximum production of 100-octane aviation gasoline ("avgas") and other war products during World War II ("WWII") and, later, the Korean War. Thus, there was at least a 15-year period of Federal involvement at the two Facilities, and during this period the Government's production demands overwhelmed Facility operations and generated substantial hazardous wastes that caused significant contamination at the Baytown and Baton Rouge Facilities.

To date, Exxon has incurred a total of approximately $77 million in past response (cleanup) costs through December 2014 at the Sites to investigate and clean up this wartime-related contamination and will incur significant additional future response costs to fully address this matter. Though this Court has ruled that the United States is a responsible party, *see Exxon Mobil Corp. v. United States*, 108 F. Supp. 3d 486 (S.D. Tex. 2015) ("*Exxon I*"), and the United States is therefore liable for a significant portion of these costs, the United States has not taken any responsibility for the cleanup. Exxon first submitted a demand letter to the United States for

the Baytown Site in 2004, and for the Baton Rouge Site in 2010, but after years of negotiations proved futile, the company filed these pending actions.

NATURE AND STAGE OF THE PROCEEDING

Exxon has filed two civil actions for reimbursement of its response costs against the United States. First, in March 2010 Exxon filed a civil action against the United States for reimbursement of its past and future response costs to address wartime-related contamination at the Baytown Site, and then in May 2011 filed a similar action with respect to the Baton Rouge Site. Exxon asserts that the United States is liable for its equitable share of such response costs incurred at the Baytown Site pursuant to 113(f) of the federal Comprehensive Environmental Response, Compensation, and Liability Act, as amended ("CERCLA"), 42 U.S.C. § 9613(f), and incurred at the Baton Rouge Site pursuant to CERCLA section 107(a), 42 U.S.C. § 9707(a).[1] These cases have been consolidated. In addition, the Court has bifurcated the litigation of the cases into the following two phases: (a) Phase 1 concerned the discovery, pretrial and trial of

[1] In 2009, Exxon also filed two pending contract actions against the United States in the U.S. Court of Federal Claims regarding the Baytown and Baton Rouge Sites. In these consolidated cases the company has alleged that the United States is contractually liable for all environmental cleanup costs incurred to address contamination related to the production of avgas during WWII pursuant to a reimbursement clause in WWII avgas supply contracts between the United States and Exxon's predecessor companies. In 2014 the U.S. Court of Appeals for the Federal Circuit held that pertinently-identical contracts required the Government to reimburse several other oil companies for cleanup costs incurred at their sites related to WWII-era waste. *Shell Oil Co. v. United States*, 751 F.3d 1282 (Fed. Cir. 2014) ("*Shell II*"). Just recently, the lower court ruled in that case that the Government was liable for 100% of claimed costs incurred pursuant to those contracts. *Shell Oil Co. v. United States*, 130 Fed. Cl. 8 (2017) ("*Shell III*").

After the court found the Government similarly liable to Exxon, Exxon's contract actions have proceeded to discovery on damages in the U.S. Court of Federal Claims to determine the amount of damages the Government was contractually obligated to pay Exxon under its WWII contracts. Those actions were then stayed in November 2015 following an insurance-related discovery dispute. *Exxon Mobil Corp. v. United States*, 124 Fed. Cl. 478 (2015). The U.S. Court of Federal Claims, in staying the case, stated that the "proper venue for addressing this issue, certainly in the first instance, is the United States District Court for the Southern District of Texas." *Id.* at 487. To date, the contract actions remain stayed.

CERCLA liability issues, which has been completed, and (b) this subsequent Phase 2 concerns discovery, pretrial and trial of costs and federal National Contingency Plan ("NCP") issues under CERCLA, as well as any other issues awaiting resolution, such as the equitable allocation.

In June 2014, the Court granted in part and denied in part the parties' cross-motions for summary judgment as to several Phase 1 issues. *See generally Exxon I*, 108 F. Supp. 3d 486. In brief, the Court held that the Government was liable as a potentially responsible party ("PRP") at both the Baytown Facility and the Baton Rouge Facility[2] and entered a "declaratory judgment that the United States is liable for its equitable share of past and future cleanup costs incurred at the Baytown and Baton Rouge sites." *Id.* at 537. The Court further noted that "[t]he equitable allocation of fault and costs will be determined" in Phase 2 of this litigation. *Id.* Accordingly, Exxon is seeking an equitable allocation of costs related to each Facility from the Government, including costs related to both the refineries and chemical plants at each Facility.

STATEMENT OF THE ISSUES FOR PHASE 2

1. Were Exxon's response costs incurred in the past at the Baytown and Baton Rouge Sites necessary?

2. Were Exxon's response costs incurred consistent with the NCP?

3. Is Exxon's proposed allocation methodology, namely one which is based on a production-oriented surrogate and incorporates adjustments for appropriate equitable factors, the appropriate methodology by which the Court will allocate relative responsibility for past and future costs at the Baytown and Baton Rouge Sites?

[2] The Court specifically ruled that the Government was an owner and operator with respect to the chemical plants, but not with respect to refineries. *Exxon I*, 108 F. Supp. 3d at 532. Nevertheless, the Court ruled that refinery and chemical plants at each site comprised a single "Facility" for purposes of CERCLA allocation and liability and so the Government is liable for an equitable share of response costs related to each entire Facility. *Id.* at 519.

In its Phase 1 decision, the Court set forth the applicable standard of review at summary judgment. *Id.* at 504.

STATEMENT OF FACTS

As in Phase 1, Phase 2 of these cases requires reconstruction of historical events that occurred more than 70 years ago. The relevant witnesses to the wartime activities (and even to the post-war waste processing improvements thereafter) are deceased, so the available evidence of the wartime and relevant post-war activities consists of the findings and testimony of a number of experts, the deposition testimony of a handful of WWII-era Government officials from the 1990s *United States v. Shell Oil Co.* CERCLA case, and a large number of historic documents of the wartime era obtained from the U.S. National Archives or Exxon records.

Though dated, this evidence paints a relatively complete picture of the Government's role in waste generation at the Baytown and Baton Rouge Facilities. During WWII and again during the Korean War, the Government through the Petroleum Administration for War ("PAW") and related Government agencies—the Petroleum Administration for Defense during the Korean War—seized unprecedented powers and authorities over virtually all aspects of the petroleum industry and individual oil refinery operations. The Government wielded these controls—which included directives and orders, production contracts, allocation of critical resources, and construction of new Government-owned plants—to maximize the production of avgas and other military petroleum products, which were crucial to the war effort. To this end the Government told Baytown and Baton Rouge what products to make, how much to make, what inputs to use, and where to send the products. As has been recognized by numerous courts and experts, this extensive Governmental control over production also amounted to control over waste generation; due to Government dictates to operate the newly-expanded refineries at maximum capacity while minimizing downtime for maintenance, waste generation surged during the wartime period.

Wastes were generated in unprecedented amounts, some of which were much more toxic than ever before and overwhelmed waste management systems.

As a result of the Government's wartime controls and demands, Exxon has incurred substantial cleanup costs at both Baytown and Baton Rouge. These cleanups were conducted with the oversight and approval of the respective state agencies and have been extensively documented.

I. The War Emergency

Prior to WWII President Franklin D. Roosevelt proclaimed a limited and then eventually an unlimited state of national emergency. PF ¶¶ 10, 18. Through legislation, Congress entrusted President Roosevelt with extraordinary authority to mobilize the national economy and issue executive orders establishing new Governmental agencies with broad powers over various industries, particularly the petroleum industry, in order to transform the country's free market economy into a regulated economy conducted to support the war effort. PF ¶¶ 9, 11–16, 22.

Key agencies that were created as part of the war effort included the following: (1) the Defense Plant Corporation ("DPC"), a subsidiary of the U.S. Reconstruction Finance Corporation ("RFC") created to construct numerous Government-owned war production plants, or "Plancors," (2) the Defense Supplies Corporation ("DSC"), another RFC subsidiary created to purchase and stockpile avgas and other war products, (3) the Rubber Reserve Company ("RuR"), a third RFC subsidiary created to operate Government-owned synthetic Plancors, and (4) the War Production Board ("WPB"), which was created by Executive Order to regulate all aspects of war procurement and production. PF ¶¶ 14–16, 20–21. Through Executive Orders 9024 and 9040, the WPB was empowered with absolute authority over the prioritization and allocation of war products, and also held the authority to seize plants that did not comply with production orders and to enforce these orders under threat of criminal penalties. PF ¶¶ 20–21.

II. The Governmental Regulatory Program for Avgas Production

"*For World War II, from beginning to end, was a war of oil.*"

Those are the words that Government historians used to describe WWII a year after it ended. PF ¶ 26. The United States required substantial quantities of avgas to win the war; avgas was the "super-fuel that meant more speed, more power, quicker take-off, longer range, greater maneuverability – all the things that mean the victory margin in combat." PF ¶ 27.

Producing the enormous quantities of avgas necessary to win WWII required an expansion and transformation of the petroleum industry that was accomplished only through stringent Governmental direction and regulatory controls. Prior to Japan's attack on Pearl Harbor, the Government recognized that the Nation's refineries possessed woefully inadequate avgas production capacity (about 40,000 barrels per day ("B/D")), well short of the estimated 636,000 B/D needed by the Allied Forces at the height of WWII. PF ¶ 30.

To bridge this gap, the Government imposed pervasive control over the petroleum industry. In fact, the Roosevelt Administration established an even more stringent regulatory framework over the petroleum industry than over virtually any other industry (except for rubber production) during the wartime period. This framework included the establishment of the PAW early in the war. PF ¶¶ 32–34. The PAW was empowered with sweeping authorities over the petroleum industry, including, for example, the authority to "issue necessary policy and operating directives to parties engaged in the petroleum industry." PF ¶ 35. According to reports at that time, this amounted to a "revolutionary" change in how the oil industry operated, and the Government controlled the entire industry "rigidly by fiat." PF ¶¶ 71–72.

PAW implemented a plethora of regulatory authorities to control all facets of oil supply and production during WWII across the entire industry. PF ¶¶ 37–45. Refineries were directed

how to use their crude oil supply and various blending components, told what products to make, directed how to run and maintain their refineries, and denied requests for construction projects that did not directly support increased production for the war effort, such as waste processing improvements and other maintenance requests. PF ¶¶ 37–45, 57–68, 73–84, 87, 158–68, 172–80. PAW officials directed the production of not only 100-octane avgas, but a range of other critical petroleum war products as well, including 87- and 91-octane avgas, 80-octane military motor gasoline, kerosene, navy and residual fuel oil, various lube oils, and others. PF ¶¶ 130–41.

In conjunction with these PAW directives, the Government took additional steps to maximize production of war products at Baytown and Baton Rouge. First, the DSC entered into three avgas supply contracts with Exxon for the production of avgas for the entire duration of WWII. PF ¶¶ 120–23. Second, throughout WWII PAW regularly directed and ordered (by telegrams or otherwise) Exxon to produce maximum quantities of other war products in addition to avgas, including residual fuel oil, kerosene, and various fuel and lube oils, and exerted control over other refinery operations. PF ¶¶ 124–30; *see also* PF ¶ 97 (Government report indicating that the Baytown refinery was operated "in exact accordance with" Government instructions). Third, and as discussed in Section III.B.1., *infra*, PAW required the construction of numerous Plancors at the Baytown and Baton Rouge Facilities to further increase wartime production. These Plancors, in conjunction with other new units that were constructed specifically for the war effort, greatly expanded production at these Facilities. PF ¶¶ 4, 8, 91-93, 226–300.

The Government's pervasive control over the petroleum industry during the wartime period has been well documented in a series of CERCLA and contract cases collectively referred to as the *Shell* litigation. In this Court's prior decision, the Court recognized that the summary of wartime events provided by the U.S. Court of Appeals for the Ninth Circuit is "largely accurate,"

including findings that "[t]he PAW centralized the government's petroleum-related activities. It made policy determinations regarding the construction of new facilities, allocation of raw materials, avgas pricing and profit limitations, and had the authority to issue production orders to refineries." *Exxon I*, 108 F. Supp. 3d at 494, 495 n.6 (quoting *United States v. Shell Oil Co.*, 294 F.3d 1045, 1049 (9th Cir. 2002) ("*Shell Oil I*")). Relying in part on *Shell Oil I*, the Court further found that "[t]he federal government implemented the Planned Blending Program to optimize avgas production," and that, as part of that plan, the Government issued detailed instructions regarding how to blend avgas. *Id.* at 495.

More recently, the U.S. Court of Appeals for the Federal Circuit, in another iteration of the *Shell* litigation, found that during the wartime period,

> [T]he Government exercised substantial wartime regulatory control over almost every aspect of the petroleum industry. It had the authority to impose obligatory product orders on private companies, with noncompliance subject to criminal sanctions or Government takeover.

Shell II, 751 F.3d at 1285.

Two other recent courts have recognized that the Government's control over the petroleum industry during the wartime period was unprecedented, and has not been repeated before or since. First, a federal district court found that the Government's involvement at a rocket manufacturing site during the 1954 to 1975 time period did not "present the pervasive levels of control exhibited in *FMC* and other World War II cases." *Lockheed Martin Corp. v. United States*, 35 F. Supp. 3d 92, 149 (D.D.C. 2014) (referencing *FMC Corp. v. United States Dep't of Commerce*, 29 F.3d 833 (3d Cir. 1994)), *aff'd*, 833 F.3d 225 (D.C. Cir. 2016)). Second, even within the context of WWII, the Ninth Circuit found that the petroleum and rubber industries should be distinguished from other WWII industries because "the government exercised more control over production" in the petroleum and rubber industries than it did, for

instance, over WWII aircraft manufacturing plants. *TDY Holdings, LLC v. United States*, 872 F.3d 1004, 1010 (9th Cir. 2017) ("*TDY*").[3]

In essence, the stringent Government controls required that both the Baytown and Baton Rouge refineries be effectively converted 100% to the maximization of avgas production. Exxon stated in a 1943 document, long before the introduction of CERCLA, that "[t]he current production of war products [at the Baytown refinery] represents essentially 100% conversion since all of the crudes and other raw materials taken into the refinery are run specifically for the production of one or more war products." PF ¶ 109. At Baton Rouge, for example, officials also noted that 100% of their products were war products during the WWII period. PF ¶ 110. As discussed further in Section III, *infra*, this conversion had important implications for the production and handling of waste at Baytown and Baton Rouge: "[t]he Government's direction over the construction of new, configured or expanded process/production units and waste disposal facilities, and its direction over the production operations and ancillary operations was tantamount to control over waste generation and disposal." PF ¶ 115 (citing the G. Kipp Supp. Rpt.).

III. The Government-Owned Plants at Each Facility

As noted above the Government also owned a number of chemical plants at the Baytown and Baton Rouge facilities, creating a unique situation that allowed the Government to exercise even greater control over the production of avgas and other war products than the Government exercised in the *Shell* case. These Plancors have been identified in the Court's prior opinion,

[3] As discussed further in Section III, *infra*, the courts in *Lockheed* and *TDY* concluded that the Government should bear a share of response costs at these sites. Other courts have fully recognized the Government's control during the wartime period. *See, e.g.*, *Exxon Mobil Corp. v. United States*, 101 Fed. Cl. 576 (2011) ("*Exxon Contract Decision*"); *Cadillac Fairview/California, Inc. v. Dow Chem. Co.*, 299 F.3d 1019 (9th Cir. 2002) ("*Cadillac Fairview*").

Exxon I, 108 F. Supp. 3d at 499–501. *See also* PF ¶¶ 226–300; Table 1, Baytown Plancors; Table 2, Baton Rouge Plancors.[4]

The Court has previously ruled that the Government is responsible as an owner and operator of these Plancors, as well as the Baytown Ordnance Works ("BOW"). *Exxon I*, 108 F. Supp. 3d at 530–32. Importantly, these Plancors were purposely sited at the Baytown and Baton Rouge refineries in order to integrate them into overall operations. PF ¶¶ 302–12. For example, many of the Plancors sent materials to the refinery for further processing, and vice versa. PF ¶¶ 302–07. Similarly, the BOW received 50,000 B/D of naptha from the refinery, which it processed into nitration grade toluene and the byproducts returned to the refinery. PF ¶ 232. Many of the Plancors also relied on the refineries' existing infrastructure, including sewers, drainage ditches, piping, and tanks, for their disposal of waste. PF ¶¶ 308–12.

IV. Wartime-Related Waste and Cleanup Costs

A. The Government Effectively Controlled Waste Generation at the Facilities During the Wartime Period.

The production of avgas and other war products at Baytown and Baton Rouge necessarily resulted in the production of byproducts and substantial quantities of waste. First—as was recognized by the Government in the avgas contracts as well as other historical documents—production of avgas necessarily required the production of "substantial quantities of motor fuel and other products[.]" PF ¶ 111. During the course of the war the Government specifically ordered that "[w]hatever is necessary to keep the production of these critical products [(avgas and toluene)] at a maximum will be done, even though this means at an extremity that products normally marketed be considered as waste if there is no possible way of storing them." PF ¶ 76.

[4] Exxon had no involvement in the operation of Plancor 877. General Tire & Rubber Company was the "agent" company that contracted with the Government regarding the operation of the plant. When the Government sold Plancor 877 in 1955, United Carbon Company purchased the plant. PF ¶¶ 254–61.

Second, "[t]he Government's direction over the construction of new, reconfigured or expanded process/production units and waste disposal facilities, and its direction over the production operations and ancillary operations, was tantamount to control over waste generation and disposal." PF ¶ 115 (citing G. Kipp). This is because (1) in light of the pressing national emergency, Government officials were involved in day-to-day decisions of the highest urgency related to the production of wartime products, (2) Government production directives required operating refinery equipment at higher temperatures and pressures with less maintenance, creating natural conditions for leaks and other malfunctions, (3) the production of avgas and other war products resulted in the generation of new wastes with higher toxicity than ever before, (4) the Government production directives required Baytown and Baton Rouge to operate at full capacity, increasing the amount of waste that was generated, and (5) the PAW hired industry representatives to advise it on the technical operations of refineries so it would have been well aware of the waste problems its production mandate was causing. PF ¶¶ 115–19, 157, 160, 358–59, 371–72. In short, the Government's wartime directives directly resulted in significant increases of waste that the refineries, prevented by the Government from taking downtime for maintenance or installing or improving waste processing equipment, were powerless to stop.

B. Post-War Waste Processing Improvements, Prohibited by the Government During the Wartime Period, Greatly Reduced the Per-Barrel Waste Generated at Each Facility After the War.

As discussed above, during the war the Government often denied requests for any construction projects that did not directly contribute to the war effort. PF ¶¶ 157–58, 172–73. This included, most importantly, denials by the Government of requests to install or improve waste processing systems. PF ¶¶ 175–81. This was because it was the Government's policy during the wartime period that "saving surface waters was secondary to saving men." PF ¶ 174; *see also Cadillac Fairview*, 299 F.3d at 1023. In addition, the Government directed refineries to

operate at full capacity and minimize downtime for maintenance, creating a situation ripe for leaks and the inability to properly address waste issues. PF ¶¶ 116–19, 371–72.

Following the war, however, refineries such as Baytown and Baton Rouge were able to implement substantial waste processing improvements. PF ¶¶ 373–95, 440–50. Both Baytown and Baton Rouge achieved the following types of significant waste reductions during the post-war period: (1) reductions in oil losses and better management of slop oils, including separator sludge, (2) reductions in overall wastewater volume, and (3) reductions in wastewater contaminants and improvements in treatment efficiency. PF ¶¶ 374–416, 440–53. Specific programs included, for instance, a substantial leak detection and repair program and an effluent improvement program, both of which were begun in the late 1940s. As discussed in greater detail in Section III.B.3., *infra*, these improvements greatly reduced the per-barrel waste that was generated at Baytown and Baton Rouge after the war. In addition, some of the improvements (e.g., the installation of the master separator at Baton Rouge) would have happened earlier but for the Government's policies during the war and actions such as the denial of Baton Rouge's request to install the master separator during the war. PF ¶¶ 176–80, 442.

C. Wartime-Related Cleanup Costs

Exxon has undertaken extensive response actions over the course of a number of years to address contamination at both Sites, and much of this contamination was caused or contributed to by wartime operations. Waste has been removed from these units as part of the eventual overall plans to remediate each of the Sites. Through December 2014, Exxon has incurred approximately $77 million to address wartime-related contamination at both Sites, and Exxon will continue to incur additional future costs to fully address this contamination. Including past costs, interest, short-term known future costs anticipated over the next five years, and recoverable consultant investigation costs, Exxon's total demand to the Government is the

Government's allocable share of approximately $100 million, plus additional future costs.

SUMMARY OF THE ARGUMENT

The court already ruled in Phase 1 that the Government is a "covered" person liable for its equitable share of past and future cleanup costs at the Baytown and Baton Rouge Sites. In Phase 2 Exxon now demonstrates that it is seeking "necessary costs incurred" by Exxon "consistent with the National Contingency Plan" at Baytown and Baton Rouge, where there has been a release or threatened release causing the incurrence of response costs. Further, Exxon has substantiated the costs it has incurred responding to contamination related to the Government's wartime activities at the Facilities. Exxon has therefore met the *prima facie* elements of its CERCLA claim against the Government, and has filed a timely claim. At the same time, Exxon has established the fundamental tenets of a fair and reasonable approach that it asks this Court to apply as a basis for equitable allocation. Exxon therefore asks the Court to adopt these tenets as a basis for an equitable allocation in these cases; because Exxon will continue to incur costs at both Sites, Exxon further asks that the Court issue a declaratory judgment that the Government is liable for its fair and equitable share of future response costs incurred at both Sites based on this allocation that are necessary and consistent with the NCP.

ARGUMENT

I. Exxon's Costs Were Necessary and Incurred Consistent with the NCP.

To recover cleanup costs under CERCLA, a private party must show that its costs (1) are "necessary costs of response"—i.e., they have been incurred for necessary response actions, and (2) have been incurred "consistent with" the NCP. 42 U.S.C. § 9607(a)(4)(B); *Amoco Oil Co. v. Borden, Inc.*, 889 F.2d 664, 672 (5th Cir. 1989). The record in this case amply shows that Exxon's claimed costs meet these requirements.

A. All Claimed Units Were Involved in Wartime Activities.

Exxon is seeking costs related to response actions for the following units and activities:

Baytown Facility	**Baton Rouge Facility**
Separators 3M and 10	Shallow Fill Zone
South Landfarm	Old Silt Pond
Upper Outfall Canal & Lower Outfall Canal;	Rice Paddy Landfarm
Velasco Street Ditch	RCRA Facility Investigation
Main Office Building (SWMU[5] 62)	Maryland Tankfarm Investigation
Mitchell Point (SWMU 60)	
Interim Groundwater Corrective Actions	
RCRA Facility Investigations	
Facility Operation Area (FOA) Investigations	

Each of these units has a "federal nexus," meaning that there is a connection or nexus between the Government and wartime-related waste and/or contamination at that unit for which Exxon has incurred cleanup costs. *See generally* PF ¶¶ 462–531.[6] At Baytown, both Separators 3M and 10 were in operation during the wartime period. PF ¶ 463–66. Separator 10 operated as the main oil/water separator, and handled the wastewater and/or wastestreams and other wastes generated by the refinery, the BOW, Butadiene Plancor 485, Butyl Rubber Plancor 1082, and Hydrocodimer Plancor 1909. PF ¶ 464. Separator 3M was used for the storage of oily sludge generated by the waste processing operations at Separator 10, and therefore handled the same wastestreams. PF ¶ 466. A third separator, Old Separator 12 (SWMU 71), similarly was used to process the overflow wastewater entering Separator 3M from Separator 10. PF ¶¶ 488–89. After the war, the South Landfarm was used to hold contaminated materials removed from Separators 3M and 10, and therefore has the same nexus to wartime activities as these units. PF ¶ 471.

The Upper Outfall Canal and Lower Outfall Canal were unlined drainage ditches that conveyed wastewater effluent discharged from Separator 10 and old Separator 12. PF ¶¶ 467–

[5] Solid Waste Management Unit.

[6] Each of these units is depicted on Figure 1, Baytown Map, and Figure 2, Baton Rouge Map.

69. Because the separators were overwhelmed during the wartime period, the wastewater effluent from the separators contained large quantities of oil and oily sediments, some of which were deposited on the bottom and sides of the Outfall Canal and migrated into the underlying subsurface soils and groundwater. PF ¶ 468. Accordingly, the same wastewaters and wastestreams that reached Separator 10 (from Site-wide operations) also contaminated the Upper and Lower Outfall Canals. PF ¶ 469.

The Velasco Street Ditch was a drainage ditch that operated during the wartime period and conveyed wastewaters and emulsions from crude oil tanks in the north part of the Baytown Facility. PF ¶¶ 472–73. Accordingly, this unit also handled waste generated by the Government's wartime operations.

With respect to the SWMUs, Mitchell Point (SWMU 60) was an area that was used for the disposal of oily sludge and dredge spoils, and possibly butyl rubber waste from the Butyl Rubber Plancor 1082. PF ¶¶ 478–79. The Main Office Building (SWMU 62) was a waste processing area used for the disposal of oily sludge and general refinery wastes, and also handled sludge from the Plancors. PF ¶¶ 480–81.[7] These units were operated during the wartime period.

As to the groundwater contamination areas, Waste Management Area-1 ("WMA-1") refers to an area that encompasses various wartime-related waste units, including the Upper Outfall Canal and Separator 3M. PF ¶¶ 496–97. The Texas state agency confirmed in the 1990s

[7] In addition, several other SWMUs at Baytown were investigated as part of the RCRA Facility Investigation and may still require significant additional response actions; they also have a nexus to the Federal Government's involvement. For instance, the Waste Clay Pile (SWMU 47) was used as a disposal area for more than one million tons of contaminated clay that was used to filter in-process fuels and lubricating oils, such as the aviation lube oils and Navy lube oils that were produced during the wartime period. PF ¶¶ 474–75. Similarly, the Old Sludge Pit (SWMU 59) stored and disposed of various wastes during the wartime period. PF ¶¶ 476–77. The nexus of these and other SWMUs is summarized in Exxon's Proposed Findings of Undisputed Material Facts. *See* PF ¶¶ 474–95.

that three of the four sources of groundwater contamination in WMA-1 units had a nexus to the Upper Outfall Canal, Separator 3M, and Old Separator 12. PF ¶ 497. In addition to WMA-1, there are four "Refinery Plume Areas" located in various parts of the refinery that all are located around waste units and SWMUs that would have resulted in spills of petroleum products (e.g., petroleum product loading areas) that were in use during the wartime period. PF ¶¶ 498–501. Finally, the Tankfarm 3000 plume area refers to groundwater contamination in the area of the former BOW. PF ¶¶ 502–05. For all of these plumes, contaminants found in the plumes correspond to the products associated with wartime production.[8]

Finally, because the two Facility Operation Areas ("FOAs") at Baytown encompass many of the units and plumes discussed above, they also have a nexus to the wartime period. PF ¶ 693. The Refinery FOA encompasses the various refinery areas (the Separators, the South Landfarm, and various wartime SWMUs) and Plancor 1909, and the Chemical Plant FOA encompasses the area that includes many of the other Plancors and the BOW. *See* Figure 1, Baytown Map.[9]

At Baton Rouge, the three claimed units are all interrelated. The Shallow Fill Zone is an expansive batture area containing contaminated wartime fill material. Located within the Shallow Fill Zone are a number of waste processing facilities and waste units, including several oil/water separators, the Old Silt Pond, the Rice Paddy Landfarm, and the Butyl Rubber Waste Landfill. PF ¶ 508. The Old Silt Pond became operational in 1945, but the area was used to

[8] For instance, part of Refinery Plume Area 4 was characterized as containing blue-dyed avgas, which corresponds with the dye added to certain types of avgas in compliance with Federal specifications during the wartime period. PF ¶ 501. Similarly, there is a correlation between the nature of most of the contaminants found in the Tankfarm 3000 groundwater contaminant plume and the types of products, byproducts, feed stocks/raw materials or wastes associated with the BOW operations during WWII, and examples include toluene, naphtha, xylene, kerosene, paraffins and reformate. PF ¶¶ 504–05.

[9] The cleanup undertaken at each of the claimed units is described in Table 3, Baytown Cleanup Summary Table.

store and dispose of wartime wastes and wastewaters at least as early as the early 1940s. PF ¶ 510. Similarly, the Rice Paddy Landfarm itself became operational in the 1970s, but the area was again used for the disposal of wartime waste and wastewaters at least as early as the early 1940s. PF ¶ 511.

Prior to the installation of the Master Separator in 1952, during rain events and spring flooding contaminated wastewaters from the separators located in the Shallow Fill Zone would flow into and contaminate the Shallow Fill Zone, including the Old Silt Pond and the Rice Paddy Landfarm areas. PF ¶ 512. Wastewaters containing oily silt and sludge from wartime operations also collected in the Old Silt Pond area due to the placement of a drainage ditch in the middle of the Old Silt Pond area. PF ¶ 513. Further, some of the contamination also reached Callaghan's Bayou. PF ¶ 509. The Bayou was later dredged and the contaminated materials placed in the Shallow Fill Zone, including the Old Silt Pond and the Rice Paddy Landfarm areas. PF ¶ 515. Since the initial source of the contamination was contaminated wastewaters and waste from wartime operations reaching (and overflowing from) the separators in the Shallow Fill Zone, this contamination has a wartime nexus. PF ¶¶ 512–22.

B. Exxon's Costs and Related Response Actions Were Necessary.

As noted above CERCLA specifies that recoverable costs must be "necessary costs of response." 42 U.S.C. § 9607(a)(4)(B). To qualify as "necessary costs of response" a party's cleanup activities must be performed in response to a release or threat of release of a hazardous substance that warrants some type of investigation or cleanup activity. *Amoco*, 889 F.2d at 669–70 ("To justifiably incur response costs, one necessarily must have acted to contain a release threatening the public health or the environment.").[10]

[10] *Cyprus Amax Minerals Co. v. TCI Pac. Commc'ns, Inc.*, No. 11-cv-0252, 2017 WL 2662195 at *12 (N.D. Okla. June 20, 2017) (necessary costs are those "'closely tied' to the cleanup of a

All costs for which Exxon is seeking reimbursement from the Government in this case are "necessary costs of response" for wartime-related contamination at the Baytown and Baton Rouge Facilities for three reasons. First, the record in this case is replete with evidence that there were releases or threatened releases of hazardous substances at each of the wartime-related units. As discussed more fully in Mr. Stephen Johnson's expert report, Exxon's response activities at both the Baytown and Baton Rouge Sites involved responses to hazardous substance releases or threats of release at each wartime-related unit. *See* Ex. 4, Att. C, S. Johnson 2016 Rpt. at 30–118. For example, the State of Texas determined in 1984 that hazardous materials had been released from Separator 3M, which was a former oil/water separator at the Baytown Facility. PF ¶ 533. The attached Baytown and Baton Rouge Cleanup Summary Tables briefly summarize similar relevant information for the claimed units for which Exxon is seeking recovery of its response costs, and identify the specific hazardous substances that were released at each of the claimed units. *See* Table 3 (Baytown) and Table 4 (Baton Rouge).[11]

Second, the releases at each of the relevant wartime-related units posed a threat or potential threat to human health or the environment that warranted the response action. For instance, Mr. Johnson explained that prior to the response action Separator 3M "was an open, earthen, unlined surface impoundment containing hazardous oily sludge, and therefore, posed a continuing threat of additional release of hazardous substances to the surrounding and underlying

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hazardous substance . . . [which] typically includes costs for 'investigating and remedying the effects of a release or threatened release of a hazardous substance into the environment'") (citations omitted); *Carson Harbor Village, Ltd. v. Unocal Corp.*, 270 F.3d 863, 872 (9th Cir. 2001) (to determine whether costs are "necessary," the focus is "not on whether a party has a business or other motive for cleaning up the property, but on whether there is a threat to human health or the environment and whether the response action is addressed to that threat").

[11] Accordingly, the *prima facie* element that there was a "release, or a threatened release which causes the incurrence of response costs, of a hazardous substance," has also been met, *see* 42 U.S.C. § 9607(a)(4), and therefore all *prima facie* elements of these CERCLA claims have been satisfied.

soils and further contamination of the underlying groundwater, which would pose an additional threat to human health and the environment." Ex. 4, Att. C, S. Johnson 2016 Rpt. at 32. Mr. Johnson similarly explained that the Old Silt Pond unit at Baton Rouge contained a variety of hazardous substances and, due to "the fact that it was not equipped with a liner" could allow the hazardous materials to leach "into the underlying soils and the groundwater, posing a threat to human health or the environment." Ex. 4, Att. C, S. Johnson 2016 Rpt. at 101–02.

In fact, in many instances the threat was urgent. At Separators 3M and 10, for instance, not only were hazardous substances present, but sampling of the sludge in the separators showed benzene at a concentration of 110 milligrams per kilogram ("mg/kg") and toluene at 510 mg/kg, well above the standards. PF ¶ 534. Similarly, sampling of the sludge at the Old Silt Pond at Baton Rouge detected benzene at 3.4 parts per million ("ppm") and toluene at 8.3 ppm. PF ¶ 734.[12]

Third, Exxon's work involving the units was directed at investigating and/or cleaning up such threats. Again using Separator 3M as an example, Exxon excavated the contaminated sludge and soil—which was posing part of the threat to human health and the environment—from Separator 3M and the surrounding area. PF ¶ 540; *see also* Ex. 4, Att. C, S. Johnson 2016 Rpt. at 30. The Baytown and Baton Rouge Cleanup Summary Tables provide an overview of the cleanup actions that were taken at each unit to address the threat or potential threat posed by the hazardous waste. *See* Table 3 (Baytown) and Table 4 (Baton Rouge).

[12] These concentration levels greatly exceed the U.S. Environmental Protection Agency's risk-based screening levels guidance. For example, EPA's risk-based screening level guidance for benzene is 0.0026 mg/kg (or 0.0026 ppm) for soils, and is based on the 0.005 ppm federal maximum contaminant level for benzene in water.
See https://semspub.epa.gov/work/HQ/197025.pdf.

In sum, Exxon's actions at Baytown and Baton Rouge were directed at threats or potential threats posed by hazardous substances that had been released into the environment. The costs associated with these actions are therefore necessary, and recoverable under CERCLA Section 107(a)(4). 42 U.S.C. § 9607(a)(4).[13]

C. Exxon's Actions Are Consistent with the NCP.

1. Background on the NCP and Standards for Consistency

Two fundamental determinations must be made before assessing whether a response action was performed consistent with the NCP. First, the response action must be classified as either a "removal" action or a "remedial" action, given that different provisions of the NCP apply to the two types of actions. Second, one must determine which version(s) of the NCP applied to the response action. Once these evaluations are made, then an assessment can be made as to whether the particular response action was consistent with the relevant NCP.

The first determination is whether a response action is a "removal" or a "remedial" action. The NCP "sets forth separate sets of compliance provisions for removal and remedial actions," so this is a preliminary determination that must be made before NCP compliance can be assessed. *Hatco Corp. v. W.R. Grace & Co. Conn.*, 849 F. Supp. 931, 961 (D.N.J. 1994). The requirements for remedial actions are generally more burdensome than those for removals.[14]

[13] Further detail regarding the necessity of the response actions for each claimed unit is provided in Mr. Johnson's May 2016 Expert Report. *See* Ex. 4, Att. C, S. Johnson 2016 Rpt.; *see also* Table 3 and Table 4, Baytown and Baton Rouge Cleanup Summary Tables (summarizing the substances posing a threat at each unit, and the response taken by Exxon under the oversight of the state agency). In addition, as more fully explained in Mr. Johnson's earlier 2014 expert report, Exxon's response actions and associated costs for the Sites were both reasonable and necessary, and also complied with all applicable Governmental rules and requirements. *See* Ex. 4, Att. B, S. Johnson 2014 Rpt.

[14] *See, e.g.*, 40 C.F.R. §§ 300.430, 300.435 (requiring parties undertaking remedial actions to undertake a remedial investigation/feasibility study and remedial design, which are not required of parties undertaking removal actions).

The second determination is which NCP applies. Historically, the U.S. Environmental Protection Agency ("EPA") has promulgated three versions of the NCP under CERCLA: (1) the "1982 NCP" that was effective from December 10, 1982, to February 17, 1986 (Ex. 13); (2) the "1985 NCP" that was effective from February 18, 1986, to April 8, 1990 (Ex. 14); and (3) the "1990 NCP" which took effect on April 9, 1990, and remains currently in effect (published at 55 Fed. Reg. 8666, Mar. 8, 1990, and now contained in 40 C.F.R. § 300.1 *et seq.*). Determining which NCP is applicable to particular cleanup activities depends upon the time at which key decisions were made and/or the activities were performed. In general, the NCP in effect at the time a particular response is approved and/or performed is used for assessing consistency with the NCP. *See Wash. State Dep't of Transp. v. Wash. Nat. Gas Co.*, 59 F.3d 793, 802 (9th Cir. 1995) (evaluating 1982, 1985 and 1990 NCPs); *Sherwin-Williams Co. v. ARTRA Grp, Inc.*, 125 F. Supp. 2d 739, 751–52 (D. Md. 2001). However, if a cleanup activity was already underway when a revised NCP became effective, the revised NCP would apply only to new decisions about the cleanup activity occurring after the revised NCP's effective date. *See, e.g., Tri–County Bus. Campus Joint Venture v. Clow Corp.*, 792 F. Supp. 984, 990–91 (E.D. Pa. 1992).

Once these evaluations are made, then an assessment is made as to whether the particular response action complied appropriately with the relevant provisions of the applicable NCP.

2. Exxon's Response Actions at Baytown and Baton Rouge Each Constitute One Continuous Series of Removal Actions as Defined by CERCLA and the NCP.

The key distinction between "removal" and "remedial" actions is that remedial actions effect a permanent, comprehensive solution to site contamination. Since no site-wide remedy has been implemented at Baton Rouge, and since the site-wide remedy at Baytown will occur as part of the FOA process, no final, site-wide remedy has been implemented at either site and the activities undertaken to date constitute one continuous removal action at each site.

(a) Standard for Distinguishing Removal and Remedial Actions

CERCLA distinguishes between removal and remedial actions, defining them as follows:

> The terms "remove" or "removal" means the cleanup or removal of released hazardous substances from the environment, such actions as may be necessary taken in the event of the threat of release of hazardous substances into the environment, such actions as may be necessary to monitor, assess, and evaluate the release or threat of hazardous substances, the disposal of removed material, or the taking of such other actions as may be necessary to prevent, minimize, or mitigate damage to the public health or welfare or to the environment, which may otherwise result from a release or threat of release. . . .
>
> The terms "remedy" or remedial action" means those actions consistent with permanent remedy taken instead of or in addition to removal actions in the event of a release or threatened release of a hazardous substance into the environment, to prevent or minimize the release of hazardous substances so that they do not migrate to cause substantial danger to present or future public health or welfare or the environment.

42 U.S.C. §§ 9601(23)–(24). The NCP provides further clarification. For instance, the preamble to the 1990 NCP notes that "[a]lthough all removals must be protective of human health and the environment within their defined objectives, removals are distinct from remedial actions in that they mitigate or stabilize the threat rather than comprehensively address all threats at a site." 55 Fed. Reg. at 8695. The NCP also provides a non-exclusive list of removal activities, including (1) capping of contaminated soils or sludges where needed to reduce the migration of contaminants into soil, groundwater or surface water, (2) excavation, consolidation or removal of highly contaminated soils, and (3) containment, treatment, disposal or incineration of hazardous materials where needed to reduce the likelihood of human, animal, or food chain exposure. 40 C.F.R. § 300.415(e).[15]

EPA has provided additional guidance through a memorandum on "non-time critical removal" actions. *See* Ex. 15, EPA Removal Guidance.[16] The EPA Removal Guidance

[15] The 1985 NCP provides a similar list of examples. *See* Ex. 14, 1985 NCP § 300.65(c).

[16] The memorandum was from Stephen Luftig, Director of EPA Office of Emergency and

addresses the appropriate use of "non-time critical removal actions," which are distinguishable from "time-critical" removal actions. "Time-critical" removal actions may be taken where there is an "immediate threat" and insufficient time to undertake certain evaluations. *United States v. W.R. Grace & Co.*, 280 F. Supp. 2d 1135, 1142–43 (D. Mont. 2002) ("*W.R. Grace*"), *aff'd*, 429 F.3d 1224 (9th Cir. 2005). By contrast, there is no requirement that non-time critical removal actions respond to an emergency or urgent risk.[17] Rather, the EPA Removal Guidance indicates that there are four criteria that should be considered in determining whether to employ a non-time-sensitive removal action, and "time-sensitivity" is only one of the four criteria. Ex. 15, EPA Removal Guidance at 3. Further, EPA defines time sensitivity only as "the need to take relatively prompt action." *Id.* The other factors to be considered include the complexity of the problem and the action, the comprehensiveness of the proposed action, and the likely cost of the action. *Id.*

The Guidance also clarifies that duration of an action ("the length of time necessary to complete an action") is not helpful in distinguishing between removal and remedial actions: "removal actions are most often of short duration, but they certainly can be long-running responses, too, thereby undercutting the probative value of duration . . . in deciding whether an action is removal rather than remedial in nature." *Id.* Similarly, "permanence" may sometimes be a relevant factor but "the Agency believes that consideration of permanence per se is sometimes misleading in making a determination regarding whether to employ removal or

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Remedial Response and dated February 14, 2000.

[17] The Government's expert, Mr. Alborz Wozniak, has argued that removal actions are only appropriate if there is an "urgent risk." Neither this term nor this concept appears in the statute or guidance as a mandatory requirement for removal actions; as noted above, "time sensitivity" is one factor that may be considered among several others. Further, requiring that all removal actions respond to an "urgent risk" would obliterate the distinction between time-critical and non-time critical removal actions.

remedial authorities. As a practical matter, removal actions are often permanent solutions such as can be the case in typical soil or drum removal." *Id.*

Case law confirms that removal actions are interim responses to an actual or potential release of hazardous substances prior to implementation of a site-wide remedy, and that factors such as "duration," "permanence," and "time-sensitivity" are not dispositive. For instance, in one recent and illustrative case the court held that a series of investigation and soil removal activities, which collectively took place over the course of almost two decades, constituted removal activities. *United States v. Boston & Maine Corp.*, No. 13-10087, 2016 WL 5339573 (D. Mass. Sept. 22, 2016).[18] The court held that the response actions were removal actions because (1) the soil removal activities fell squarely within the statutory definition of "removal," and (2) the focus of the soil removal activities was to remove already released hazardous substances. *Id*. at *11–13.[19] The court further held that removal actions may, in circumstances like these, provide "a long-term solution" without being deemed remedial, and that the seven-year delay in actually conducting the removal activities did mean that the activities were not intended to address a present threat. *Id.*[20] Other courts have similarly held that activities should be considered removals when they are conducted before a permanent, final remedy has been selected for the site. *See, e.g.*, *Geraghty*, 234 F.3d at 926 ("[R]emoval actions generally are

[18] As discussed further below, the court held that all removal activities that occurred at the same site over the course of two decades actually constituted one single "removal action."

[19] *See also Gen. Elec. Co. v. Litton Indus. Automation Systs*, 920 F.2d 1415, 1419 (8th Cir. 1990) (holding that excavation of contaminated soils was properly characterized as a removal action), *abrogated on other grounds by Key Tronic Corp. v. United States*, 511 U.S. 809 (1994).

[20] *See also Valbruna Slater Steel Corp. v. Josyln Mfg. Co.*, No. 1:10-cv-44, 2013 WL 1182985, at *8 (N.D. Ind. March 21, 2013) ("[T]he duration of an action is just one factor to consider . . . [and] [u]nder the right circumstances, a removal action can last quite some time."); *Geraghty & Miller, Inc. v. Conoco, Inc.*, 234 F.3d 917, 926–27 (5th Cir. 2000) (holding that various groundwater assessment activities conducted over a 12-year period constituted removal actions), *abrogation on other grounds recognized by Vine Street LLC v. Borg Warner Corp.*, 776 F.3d 312 (5th Cir. 2015) ("*Vine Street II*").

immediate or interim responses, and remedial actions generally are permanent responses."); *Cal. Dep't of Toxic Substances Control v. J&S Chrome Plating Co.*, No. 14-02613, 2015 WL 12645742, at *3 (C.D. Cal. July 30, 2015). "In addition, 'Congress intended that the term "removal action" be given a broad interpretation'." *Geraghty*, 234 F.3d at 926 (quoting *Kelley v. E.I. DuPont de Nemours & Co.*, 17 F.3d 836, 843 (6th Cir. 1994)).

The Government has taken similar positions in other cases. For instance, in an EPA filing related to the Interstate Lead Company Superfund Site, the Government argued that all of its activities at the site (which included monitoring and assessment, as well excavation and disposal of contaminated soils) prior to issuance of the "Final [Record of Decision]" constituted a single removal action. Ex. 16, U.S. *Mountain Metals* SJ Brief at 29–33. Similarly, in another case the court agreed with EPA that its "three major response activities" conducted over the period of several years—removal of liquids and sludges from ponds, a hazard ranking, and a remedial investigation—all constituted "removal actions under the meaning of CERCLA." *United States v. R.A. Corbett Transp., Inc.*, 785 F. Supp. 81, 81–82 (E.D. Tex. 1990).

Finally, case law also confirms that activities that are "necessary to monitor, assess, and evaluate" an environmental threat, which is included in the statutory definition of "removal," should be treated as removal activities. *See, e.g., Tanglewood East Homeowners v. Charles-Thomas, Inc.*, 849 F.2d 1568, 1575 (5th Cir. 1988) ("removal" includes investigatory activities); *Vine Street, LLC v. Keeling ex rel. Keeling*, 460 F. Supp. 2d 728, 738 (E.D. Tex. 2006) ("*Vine Street I*"), *rev'd on other grounds*, *Vine Street II*, 776 F.3d 312; *Kelley*, 17 F.3d at 843.

In short, the key distinction between removal and remedial actions is that remedial actions are those intended to implement permanent, comprehensive solutions to site conditions.[21]

[21] It should also be noted that whether an action is termed "removal" or "remedial" in

Removal actions, by contrast, are interim responses to deal with the actual or potential release of hazardous substances prior to implementation of a final, site-wide remedy. Investigation and monitoring, soil excavation, capping, and groundwater extraction are all activities that fall squarely within the definition of "removal" activities, *see* 40 C.F.R. § 300.415(e)—and in the case of soil excavation and groundwater extraction, the activities are literally "removing" the contamination from the environment.

(b) Exxon's Actions at Baytown and Baton Rouge are Removal Activities.

Applying the standard articulated above, all of Exxon's actions at Baytown and Baton Rouge have been removal activities. Each action was (1) an interim response to abate or minimize the actual or potential release of hazardous substances prior to selection or implementation of a final, site-wide remedy, (2) within the statutory definition of "removal," and (3) within the scope of removal activities contemplated by the NCP.

First, as discussed in detail in Section I.B, *supra*, each of Exxon's actions at Baytown and Baton Rouge was directed at threats or potential threats posed by hazardous substances that had been released into the environment. For instance, sampling of sludges at Separators 3M and 10 detected significant concentrations of benzene and toluene. PF ¶ 534. At the direction of the state agency Exxon undertook various investigatory and soil excavation activities specifically to

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contemporary documents is not dispositive whether it is in fact a removal action or a remedial action under CERCLA. Among other issues, the term "remediation" is generally used in technical documents to refer to all manner of cleanup, and does not mean that there was a specific finding that an action meets CERCLA's definition of "remedial." *See Geraghty*, 234 F.3d at 926 ("[I]t strikes us that confusion often results because the industry use of 'remediation' is not synonymous with CERCLA's definition of 'remedial'."); *New York v. Next Millenium Realty, LLC*, 732 F.3d 117, 130 (2d Cir. 2013) ("These generic uses of the word 'remedial,' however, do not require a finding that the measures were remedial in the statutory sense at the time they were implemented. The word 'remedial' is often used in environmental discussions in its common every day sense, namely, 'intended as a remedy'.").

remove the contaminated soil from Separators 3M and 10. PF ¶ 540. This work was interim in nature and only addressed part of the threat posed by the hazardous substances, as evidenced by the later interim measures that the state agency directed Exxon to take, including a RCRA Facility Investigation at SWMU 70 (which included Separator 3M) and various groundwater assessments, monitoring, and extraction. PF ¶ 545. Finally, none of the work described above constituted a final, site-wide remedy; instead, Exxon is undertaking the FOA process at the Baytown refinery, the product of which is a site-wide, holistic approach that addresses multiple sources of contamination within the refinery area. PF ¶¶ 699–700; Ex. 10, Paredes Decl.[22]

Similarly, many of the other activities at Baytown were explicitly referred to as "interim corrective actions," including the phase-separated hydrocarbon recovery that the state agency directed Exxon to undertake to address the hazardous substances in Refinery Plume Areas 1–4. PF ¶ 626. Although this action addresses part of the threat of the hazardous substances in the area, it did not address any source area contamination and therefore was not intended to be a permanent, final remedy. PF ¶ 628. At Baton Rouge, the state agency required Exxon to implement interim activities to investigate contamination in the Shallow Fill Zone, prevent migration of contamination from the Shallow Fill Zone, and remove free-phase hydrocarbons from the groundwater, thereby addressing some of the risks posed by the hazardous substances in the groundwater. PF ¶ 719. These actions were not intended to be a permanent or final remedy because they only addressed migration and removal of free-phase hydrocarbons in the groundwater; they did not address the oily fill materials that were the source of the free-phase hydrocarbons, or address the dissolved-phase hydrocarbons in the groundwater. PF ¶ 722.

[22] Exxon has completed the five-step FOA process for the Baytown refinery, but not yet completed this process for the Baytown chemical plant. PF ¶¶ 699–700; Ex. 10, Paredes Decl.; Ex. 11, Gagnon Decl.

For further discussion of the interim nature of the response activities taken at Baytown and Baton Rouge, *see* PF ¶¶ 538–783. For all units, however, the dispositive factor is that no permanent, site-wide remedy has been selected at either site; at Baytown, the permanent, site-wide remedy will result from the FOA process, which is not yet completed. PF ¶ 699–700; Ex. 10, Paredes Decl.; Ex. 11, Gagnon Decl.

Second, the activities conducted at Baytown and Baton Rouge fall squarely within the statutory definition of "removal." At all claimed units, Exxon conducted investigation activities within the scope of "such actions as may be necessary to monitor, assess, and evaluate the release or threat of release of hazardous substances[.]" 42 U.S.C. § 9601(23); *see also Tanglewood*, 849 F.2d at 1575; PF ¶¶ 532–783 (identifying the investigation activities undertaken at different units); Table 3 and 4, Baytown and Baton Rouge Cleanup Summaries (same). At many units, Exxon undertook soil excavation and/or groundwater extraction activities that fall well within the most natural definition of "remov[ing] released hazardous substances from the environment." 42 U.S.C. § 9601(23).[23]

Third, the activities conducted at Baytown and Baton Rouge are also removal actions when the NCP is considered. For instance, the 1982 NCP, which was in place during the cleanup of Separator 3M, identifies as one of the factors warranting removal actions "[h]ighly contaminated soils largely at or near the surface, posing a serious threat to public health or the environment." Ex. 13, 1982 NCP § 300.67(c)(4); *see also* Ex. 14, 1985 NCP § 300.65(b)(2)(iv) (identifying a similar factor). As previously discussed, the action taken at Separator 3M was to remove highly-contaminated soils which had been determined to pose a risk. PF ¶¶ 532–35,

[23] *See* PF ¶¶ 539–40 (Separators 3M and 10); PF ¶¶ 574, 580 (Upper and Lower Outfall Canals and Velasco Street Ditch); PF ¶ 612 (Main Office Building/SWMU 62); PF ¶ 595 (Mitchell Point/SWMU 6); PF ¶¶ 632, 649, 668 (Interim Groundwater Corrective Actions); PF ¶ 724 (Shallow Fill Zone).

541–42. The 1990 NCP likewise states that removal actions are appropriate where there are high levels of hazardous substances in the soils at or near the surface. 40 C.F.R. § 300.415(b)(2)(iv). In the case of the groundwater plumes at Baytown, the soil contamination had already impacted the groundwater and so responses to the groundwater were necessary to address the "high levels of hazardous substances." PF ¶ 667. Accordingly, the WMA-1 groundwater investigation and extraction activities, for instance, took place under circumstances contemplated by the 1990 NCP as appropriate for removal actions.

Further, the activities conducted at Baytown and Baton Rouge are explicitly among the types of activities contemplated by the NCP as removals. For instance, both the 1985 NCP and the 1990 NCP identify "removal of highly contaminated soils from drainage or other areas – where removal will reduce the spread of contamination" as an appropriate removal activity. Ex. 14, 1985 NCP § 300.65(c)(6); 1990 NCP, 40 C.F.R. § 300.415(e)(6) (similar). Soil removal activities were conducted by Exxon at Separators 3M and 10 (PF ¶¶ 539–40), the Outfall Canals and Velasco Street Ditch (PF ¶¶ 574, 580), the Main Office Building/SWMU 62 (PF ¶ 612), and Mitchell Point/SWMU 60 (PF ¶ 595). Similarly, both the 1985 and 1990 NCPs identify "[c]apping of contaminated soils or sludges-where needed to reduce migration of hazardous substances or pollutants or contaminants into soil, ground water, or air" as an appropriate removal activity, Ex. 14, 1985 NCP § 300.65(c)(4); 1990 NCP, 40 C.F.R. § 300.415(e)(4) (similar), and the 1990 NCP additionally clarifies that consolidation of contaminated soil is another appropriate removal activity. 1990 NCP, 40 C.F.R. § 300.415(e)(6). Work at the South Landfarm involved consolidation of contaminated materials and installation of a cap (PF ¶ 559), and work at the Old Silt Pond and Rice Paddy Landfarm involved installation of a cap following solidification or degradation of some of the contaminated materials (PF ¶¶ 741, 760); *see* Ex. 12,

Pisani Decl. Finally, the various groundwater extraction activities at Baytown constitute "[c]ontainment, treatment, disposal, or incineration of hazardous materials," as contemplated by the NCP. 1990 NCP § 300.415(e)(8); *see* PF ¶¶ 632, 649, 668.

Case law also supports the conclusion that investigations and cleanups conducted at Baytown and Baton Rouge were removal activities. For instance, the *Boston & Maine* court held that investigations and soil excavations, conducted over the course of many years, should be considered "removals" because they fell squarely within the statutory definition. 2016 WL 5339573, at *11–13. Similarly, the Government itself argued that activities it conducted before a final remedy was selected (including both investigation and soil removal activities) should be treated as a removal. Ex. 16, U.S. *Mountain Metals* SJ Brief at 29–33.

Finally, Exxon's NCP expert, Mr. Johnson, concluded based on his review of the Exxon activities that they all constituted removal activities. *See generally* Ex. 4, Att. C, S. Johnson 2016 Rpt. Mr. Johnson has thirty years of experience with contaminated sites and has served as Chief of the EPA Region IX RCRA Enforcement Section as well as Assistant Director of the Arizona Department of Environmental Quality in charge of the Office of Waste Programs, *id.* at 4–5, and is well qualified to opine on the characterization of Exxon's actions at Baytown and Baton Rouge.[24] Accordingly, based on the statute, the NCP, the related case law, and Mr. Johnson's review, Exxon's actions at Baytown and Baton Rouge should be treated as removals.

(c) Exxon's Actions at Baytown and Baton Rouge Each Constitute a Single, Continuous Removal Action.

Finally, all of Exxon's removal activities at Baytown and Baton Rouge should be treated as one single, continuous removal action at each site. Courts generally find that, absent special

[24] In contrast, the Government's expert Mr. Wozniak has no experience working for either EPA or a state agency.

circumstances, there is only one "removal action" at each site. *Kelley*, 17 F.3d at 843; *Cal. Dep't of Toxic Substances v. Alco Pac., Inc.*, 308 F. Supp. 2d 1124, 1131–32 (C.D. Cal. 2004). Accordingly, courts find that a series of removal activities, even if they take place over a span of many years, constitute a single, continuous removal action. *See, e.g.*, *Boston & Maine*, 2016 WL 5339573, at *11–13 (all activities that took place over the span of two decades constituted a single removal action); *Kelley*, 17 F.3d at 840–44 (holding that surface removal activities and the remedial investigation and feasibility study collectively comprised a single removal action). The Government has itself argued that a series of response actions, including investigations and soil excavation activities that take place over a number of years, should constitute a single removal action. *See* Ex. 16, U.S. *Mountain Metals* SJ Brief at 29–33.

Because the activities in the cases described above comprised a single, continuous removal action, those courts further hold that the removal action was not "complete"[25] until the "final monitoring or evaluation is done, a [Record of Decision] is issued, or some determination is reached that no further action is necessary." *Boston & Maine*, 2016 WL 5339573, at *15 (two decades of removal activities were not "complete" until a record of decision was issued); *see also R.A. Corbett*, 785 F. Supp. at 81–82 (deeming removal activities "three major response activities" conducted at a site by the Government and then holding they were not complete until the record of decision was issued selecting a final remedy for the site).

Accordingly, Exxon's activities at Baytown and Baton Rouge each constitute one continuous removal action. Further, the removal action at Baton Rouge is not complete because

[25] As the Court has already recognized, the three-year statute of limitations contained in CERCLA Section 113(g)(2)(A) is not triggered until a removal action is deemed complete. *Exxon I*, 108 F. Supp. 3d at 515 n.21 ("But § 113(g)(2)'s statute of limitation begins to run on the 'completion of the removal action'."). Conversely, if a removal action remains ongoing, the statute of limitations has not yet been triggered.

the work remains ongoing and no final, site-wide remedy has been selected. PF ¶¶ 722, 739, 758. Similarly, the final remedy for the Baytown Site will be selected as part of the FOA process, and so the removal action at Baytown is likewise not complete. PF ¶¶ 545, 564, 576, 597, 614, 629, 646, 665.

3. Exxon's Removal Actions Were Consistent with the NCP.

(a) Relevant NCP Standards

For a private party to recover costs under CERCLA, its costs must be consistent with the NCP. 42 U.S.C. § 9607(a)(4)(A). As discussed above one of three different NCPs are potentially applicable to each of Exxon's activities at Baytown and Baton Rouge: the 1982 NCP, the 1985 NCP, or the 1990 NCP. *See* Ex. 4, Att. C, S. Johnson 2016 Rpt. at 9. Each version of the NCP contains requirements related to removal actions, some of which are explicitly made applicable to private party removal actions.[26] The 1990 NCP clarifies that "[a] private party response action will be considered 'consistent with the NCP' if the action, when evaluated as a whole, is in substantial compliance" with the applicable NCP requirements. 40 C.F.R. § 300.700(c)(3)(i). Courts have since confirmed that while the "substantial compliance" language was added in 1990, it was meant to clarify that the standard for compliance for private parties had always been one of substantial compliance.[27] Actions will not be considered inconsistent with the NCP "based on immaterial or insubstantial deviations" from the relevant

[26] The 1990 NCP, for instance, contains a provision explicitly identifying which provisions are "potentially applicable" to private party response actions. 40 C.F.R. § 300.700. The 1982 NCP, by contrast, contains provisions related to removal actions, but does not specify that they apply to private party actions. Exxon has taken a conservative approach and evaluated those provisions as if they indeed did apply to private party actions like Exxon's.

[27] *See, e.g.*, 55 Fed. Reg. at 8666 ("Today's revisions to the NCP are intended to . . . clarify existing NCP language"); *see also Louisiana-Pacific Corp. v. ASARCO, Inc.*, 24 F.3d 1565, 1576 (9th Cir. 1994) (applying the substantial compliance test to assess consistency with earlier NCPs); *Sherwin-Williams*, 125 F. Supp. 2d at 752 ("Therefore, this Court will apply a substantial compliance standard to consistency with each of the NCPs.") (emphasis added).

NCP provisions. 40 C.F.R. § 300.700(c)(4). Accordingly, private party response actions—conducted under any NCP—must only "substantially comply" with the applicable provisions in the relevant NCP and do not need to attain strict compliance with each and every provision.

Although the NCP contains a number of provisions potentially relevant to private party removal actions, they can largely be grouped into two categories: (1) technical NCP requirements, including the obligation to identify and comply with applicable or relevant and appropriate requirements ("ARARs"),[28] and (2) public participation requirements, which only apply directly to private party removal actions under the 1990 NCP.[29] Additionally, private party response actions undertaken under the 1990 NCP should result in a "CERCLA-quality cleanup." A complete list of the relevant NCP provisions is provided in Table 5.

State participation and involvement in a cleanup is strong evidence that a party's actions were consistent with the NCP. Many courts, for instance, find that active state participation and involvement satisfies the NCP public participation requirements. *See, e.g.*, *Bedford Affiliates v. Sills*, 156 F.3d 416, 428–29 (2d Cir. 1998) (finding that public participation requirements are met by substantial involvement of the state environmental agency), *overruling on other grounds recognized by New York State Elec. & Gas Corp. v. FirstEnergy Corp.*, 766 F.3d 212 (2d Cir. 2014); *Valbruna Slater Steel Corp. v. Josyln Mfg. Co.*, No. 1:10-cv-44, 2015 WL 8055999, at *5–6 (N.D. Ind. Dec. 4, 2015) ("*Valbruna II*") (finding that the state agency had participated sufficiently to meet the NCP's public participation requirement). Other courts go even further

[28] Although the 1982 NCP contains technical NCP requirements applicable to removal actions, ARARs did not become an NCP requirement until 1985.

[29] The 1982 NCP contains no public participation provisions applicable to private party removal actions. The 1985 NCP provides some public participation provisions applicable to removal actions, but does not explicitly make them applicable to private party actions. *See* Ex. 14, 1985 NCP §§ 300.67, 300.71. Exxon's expert Mr. Johnson nevertheless evaluated the 1985 NCP public participation provisions as though they applied to Exxon's actions.

and hold that state participation, especially when the private party is conducting a cleanup pursuant to a state order or settlement, is effectively dispositive of NCP consistency:

> Courts presume that actions undertaken by the federal, or a state, government are consistent with the National Contingency Plan. However, private parties that have responded to hazardous substances must establish compliance. One way to establish compliance with the national plan is to conduct a response under the monitoring, and with the ultimate approval of, the state's environmental agency.

Niagara Mohawk Power Corp. v. Chevron U.S.A., Inc., 596 F.3d 112, 137 (2d Cir. 2010) (emphasis added).[30] Similarly, a Texas federal court recently ruled that "[u]nlike voluntary response actions, where the burden of demonstrating consistency with the NCP is on a plaintiff, [w]here a private party is cleaning up a site pursuant to an administrative order [or consent order], the regulations establish an irrebuttable presumption that the private party's actions were consistent with the NCP." *USOR Site PRP Grp. v. A&M Contractors, Inc.*, No. 4:14-cv-2441, 2017 WL 1319788, at *5 (S.D. Tex. Apr. 7, 2017) (emphasis added) (citations omitted) (ruling that the plaintiffs, who had incurred costs pursuant to agreed orders with EPA as well as under the direction of the TCEQ, had complied with the NCP).

Finally, the applicable guidance and case law demonstrates that costs incurred under RCRA and other cleanup laws should generally be recoverable (and deemed NCP-consistent) under CERCLA. EPA guidance explicitly states that "[g]enerally, cleanups under RCRA corrective action or CERCLA will substantively satisfy the requirements of both programs." Ex.

[30] *See also Nutrasweet Co. v. X-L Eng'g Co.*, 227 F.3d 776, 792 (7th Cir. 2000) (holding that the plaintiff had "satisfied the NCP" because the Illinois state agency approved the cleanup plan and monitored its progress); *Allied Waste Transp., Inc. v. John Sexton Sand & Gravel Corp.*, No. 13-c-1029, 2016 WL 3443897, at *19 (N.D. Ill. June 23, 2016) ("Substantial compliance with the NCP can be established by demonstrating a state environmental protection agency's substantial involvement in the cleanup."); *Rococo Assocs., Inc. v. Award Packaging Corp.*, 803 F. Supp. 2d 184, 191 (E.D.N.Y. 2011) ("To establish compliance with the NCP, a plaintiff need only show that its remediation was conducted under the aegis of a state environmental agency."); *Litton*, 920 F.2d at 1419–20 (noting that the state agency had been involved at the site before concluding that the work was consistent with the NCP).

17, RCRA-CERCLA Parity Guidance. Similarly, courts—including this one—have explicitly ruled that allowed costs incurred as part of a RCRA cleanup are "response costs" under CERCLA. *Exxon I*, 108 F. Supp. 3d at 511; *see, e.g.*, *Union Carbide Corp. v. Thiokol Corp.*, 890 F. Supp. 1035, 1044 (S.D. Ga. 1994).

The following sections summarize the actions Exxon took to substantially comply with (1) the technical NCP requirements, and (2) the public participation requirements under the relevant NCPs. Detailed analysis of each unit, and its compliance with the NCP, is provided in Ex. 4, Att. C, S. Johnson 2016 Rpt., and summarized in the attached NCP Compliance Tables. *See* Table 6 (Baytown) and Table 7 (Baton Rouge).[31] In every case, involvement and oversight of the States of Louisiana and Texas provide strong evidence of NCP consistency.

(b) Actions Subject to the 1982 NCP at Baytown Were Conducted Consistent with the NCP.

Exxon's actions taken at Separators 3M and 10 and the South Landfarm were begun while the 1982 NCP was in effect. PF ¶ 538. Experts for both Exxon and the Government agree that the Separator 3M and 10 activities were conducted pursuant to the 1982 (as well as the 1985) NCP, and that they were consistent with the NCP.[32] *See* Ex. 4, Att. C, S. Johnson 2016 Rpt. at 35–42; Ex. 18, Wozniak 2017 Rpt. at 76–80. Although Mr. Wozniak characterizes the actions at both units as remedial in nature, the remedial requirements under the 1982 NCP are more onerous than those for removal actions so meeting the remedial requirements would necessarily mean that the removal requirements have also been met.

[31] As discussed in Section II, *infra*, Exxon also met the requirement to provide adequate documentation regarding its cleanup costs, even though this requirement was not made applicable to private-party actions until the 1990 NCP. Ex. 14, 1985 NCP § 300.69.

[32] Although the selection of the removal activities was performed before the 1985 NCP took effect for these units, a portion of the cleanup continued after the 1985 NCP was in place. For those later activities, Exxon's expert Mr. Johnson did evaluate consistency with the 1985 NCP.

In any event, Mr. Johnson determined that the actions taken at Separators 3M and 10 met the technical requirements under the 1982 NCP, Section 300.67: (1) the state agency determined that there was a release of hazardous substances contaminating the underlying groundwater, Ex. 13, 1982 NCP § 300.67(a); (2) the hazardous substances in the separators and the surrounding area posed a serious threat to the environment since the sludge and some of the soils were at the surface, *id.* § 300.67(c); and (3) the state agency determined that the interim actions could conclude (although subsequent actions in the area were required) when all of the contaminated soils had been removed and disposed of, *id.* § 300.67(d). *See* PF ¶¶ 533–41; Ex. 4, Att. C, S. Johnson 2016 Rpt. at 35–42. No public participation was required for removal actions under the 1982 NCP, so compliance with the removal action provisions discussed above means that the actions were consistent with the NCP.[33] Further, these actions were conducted under the oversight, and with the approval, of the Texas state agency. PF ¶¶ 533–41, 550–51.

Although activities at the South Landfarm span all three NCPs, the removal action was selected under the 1982 NCP. Accordingly, Mr. Johnson determined that the cleanup complied with the technical requirements of the 1982 NCP § 300.67(a), (c), and (d) because the landfarm contained hazardous substances that posed a risk absent the agency-approved cleanup action. Ex. 4, Att. C, S. Johnson 2016 Rpt. at 46–47; *see also* PF ¶¶ 555–59.[34] As above, no public

[33] A portion of the cleanup for each unit continued after the 1985 NCP took effect. However, no public participation was required because the cleanup had already been selected while the 1982 NCP was in effect. PF ¶ 538. Under the 1985 NCP § 300.67(f), Fund-financed cleanups are required to attain ARARs to the extent possible; even assuming that private parties were also required to attain ARARs to the extent possible, Mr. Johnson concluded that Exxon's actions at Separators 3M and 10 were consistent with all applicable laws as demonstrated by the state agency's approval of the cleanup plan and execution. *See* Ex. 4, Att. C, S. Johnson 2016 Rpt., Attachment 4 § 13.2.

[34] Although the remedy had already been selected prior to the 1985 NCP, PF ¶ 558, Mr. Johnson also concluded that the activities that took place while the 1985 NCP was in effect complied with the only applicable 1985 NCP provision, the imposition of the ARARs, because the cleanup was

participation was required for the selection of removal actions under the 1982 NCP. Finally, the cleanup of the South Landfarm was conducted under the oversight, and with the approval, of the Texas state agency, PF ¶ 566, and therefore should be deemed consistent with the NCP.

(c) Actions Subject to the 1985 NCP at Baton Rouge Were Conducted Consistent with the NCP.

Messrs. Wozniak and Johnson agree that the 1985 NCP is relevant to the activities related to the Shallow Fill Zone, Old Silt Pond and Rice Paddy Landfarm, and Mr. Wozniak further agrees that the action taken at the Old Silt Pond was consistent with the 1985 NCP, although he asserts that these activities were remedial. *See* Ex. 4, Att. C, S. Johnson 2016 Rpt. at 94–115; Ex. 18, Wozniak 2017 Rpt. at 101. In any event, the removal activities at each of the three units should be deemed consistent with the NCP because they met the technical NCP requirements and were undertaken with the approval and supervision of the state.

Exxon's actions at these three units complied with the technical requirements of the 1985 NCP. First, Exxon acted in circumstances warranting a removal action, *see* Section I.C.2, *supra*, and Ex. 14, 1985 NCP § 300.71(a)(2)(i). Second, Exxon implemented the actions consistent with Section 300.65: (1) as the "lead agency," LDEQ reviewed the various assessments and investigation reports to determine if a removal action was appropriate, ultimately concluding that the removal actions were indeed necessary, Ex. 14, 1985 NCP § 300.61(a)(1), (b)(4); and (2) Exxon complied with the ARARs, as demonstrated by LDEQ's approval of Exxon's cleanup plans and removal activities, *id.* § 300.65(f). *See* Ex. 4, Att. C, S. Johnson 2016 Rpt. at 94–115 and Attachment 4 at 34–38; PF ¶¶ 713–70.

Although the 1985 NCP does contain public participation requirements for removal

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conducted with the approval of the state. Ex. 4, Att. C, S. Johnson 2016 Rpt. at 48 & Attachment 4 § 16.2.

actions, *see* Ex. 14, 1985 NCP § 300.67, these provisions are not made explicitly applicable to private party removal actions. Exxon in conjunction with LDEQ nevertheless conducted public outreach. For instance, in 1988 LDEQ provided notice of opportunity for public comments on the plans for both the Old Silt Pond and the Rice Paddy Landfarm, and received no public comments. PF ¶¶ 747, 766. In any case, the state oversaw Exxon's investigatory and cleanup work, and ultimately approved the cleanup plans and the work that was conducted, PF ¶¶ 729, 748, 767, fulfilling any potentially applicable public participation requirement. *Valbruna II*, 2015 WL 8055999, at *5–6. Accordingly, Exxon's work at these three units substantially complied with the 1985 NCP.

(d) Actions Subject to the 1990 NCP at Baytown Were Conducted Consistent with the NCP.

Exxon, with state oversight, conducted the following removal activities under the 1990 NCP: (1) cleanup of the Upper and Lower Outfall Canals and the Velasco Street Ditch, (2) interim response actions at the Main Office Building (SWMU 62) and Mitchell Point (SWMU 60), (3) interim groundwater corrective actions (including Tankfarm 3000, WMA-1, and the Refinery Plume Areas), (4) a RCRA Facility Investigation of various SWMUs, and (5) investigations related to the refinery and chemical plant FOAs. *See* Table 3, Baytown Cleanup Summary. Each of these actions was consistent with the 1990 NCP.

With respect to the first three activities, Mr. Johnson determined that (1) they complied with the technical NCP requirements, including the ARARs, (2) there was significant state involvement and oversight, and (3) there was sufficient public participation. *See* Ex. 4, Att. C, S. Johnson 2016 Rpt. at 50–93.[35] First, these units substantially complied with the following

[35] Because activities at the South Landfarm continued after the 1990 NCP came into effect, Mr. Johnson also confirmed that South Landfarm activities conducted during that period also complied with the 1990 NCP. *See* Ex. 4, Att. C, S. Johnson 2016 Rpt. at 49–50.

"potentially applicable" technical provisions of the 1990 NCP:[36]

- **Section 300.150, Worker health and safety:** For the three activities described above, Exxon required its contractors and subcontractors to comply with Exxon's established and written occupational safety and health plants and procedures. PF ¶¶ 581, 598, 615, 633, 650, 669.

- **Section 300.160, Documentation and cost recovery:**[37] For the three activities described above, Exxon prepared and maintained adequate documentation of the response action.[38]

- **Section 300.400(c)(1), (5), and (7), General; Fund-finance action:** Each of the three activities met these general NCP provisions in several ways. First, the actions were conducted promptly and in an efficient manner to address the release or threat of release. 40 C.F.R. § 300.400(c)(1); *see generally* PF ¶¶ 570–80, 589–95, 606–12, 623–32, 642–49, 661–68. Second, these actions included the evaluation of alternative technological approaches and selection of the best available technological approach. *See, e.g.*, PF ¶¶ 580, 583 (discussing this process for the Outfall Canals and the Velasco Street Ditch); PF ¶¶ 617 (similar for SWMU 62); PF ¶¶ 649, 654 (discussing the evaluation of alternative groundwater extraction systems for the Tankfarm 3000 activities).

- **Section 300.400(e), General; Permit requirements:** Exxon complied with all applicable permitting requirements related to each of these activities. For instance, Exxon obtained an amendment to its existing wastewater treatment permit to allow for the treatment of recovered groundwater in connection with its groundwater recovery efforts. PF ¶ 655.

- **Section 300.400(g), General; Identification of ARARs:** Mr. Johnson also determined that Exxon complied with all applicable requirements, as demonstrated by the state agency's oversight and approval of Exxon's work at each of these units. *See*

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[36] These provisions are identified as those "potentially applicable" to private party removal actions. *See* 40. C.F.R. § 300.700(c)(5) and (6); *see also* Table 5, Relevant NCP Provisions. In a number of instances, the Government's expert Mr. Wozniak agreed that Exxon complied with the 1990 NCP technical requirements. *See, e.g.*, Ex. 18, Wozniak 2017 Rpt. at 82 (Outfall Canals), 94 (Tankfarm 3000).

[37] In addition, and as discussed in Section II, *infra*, Exxon also complied with the requirement to provide an "accurate accounting" of the "private party costs incurred for" the response actions. 40 C.F.R. § 300.160(a)(1).

[38] *See, e.g.*, Ex. 4, Att. C, S. Johnson 2016 Rpt. at 55 n.166 (listing the documentation related to activities at the Outfall Canals and the Velasco Street Ditch), 63 n.202 (listing the documentation related to Refinery Plume Area activities), 70 n.235 (listing the documentation related to the Tankfarm 3000 activities), 77 n.261 (listing the documentation related to the WMA-1 activities), 90 n.316 (listing the documentation related to SWMUs 60 and 62).

generally Ex. 4, Att. C, S. Johnson 2016 Rpt. at 50–93.[39]

- **Section 300.410, Removal site evaluation:** Exxon complied with this provision because, for all activities, Exxon conducted thorough soil and/or groundwater investigations of the scope and extent of the contamination before and in conjunction with the removal actions ultimately undertaken. *See generally* Table 3, Baytown Cleanup Summary (summary of removal activities column identifying the investigations and assessments undertaken prior to cleanup work at each unit).[40]

- **Section 300.415, Removal action:** This provision outlines various requirements for non-time critical removal actions. *See* 40 C.F.R. § 300.415; *see also* Table 5, Relevant NCP Provisions. Mr. Johnson concluded that Exxon's removal activities at Baytown all complied with this provision. *See generally* Ex. 4, Att. C, S. Johnson 2016 Rpt. at 50–93. For instance and as discussed above, for each unit, Exxon complied with this provision's investigation and sampling related requirements. 40 C.F.R. §§ 300.415(a)(1), (b)(4)(ii). Further, Exxon considered various alternative approaches at these units. 40 C.F.R. § 300.415(b)(4)(i); *see* PF ¶¶ 580, 583 (describing alternatives analysis for work conducted at the Outfall Canals and Velasco Street Ditch); PF ¶ 600 (same for SWMU 60); PF ¶ 617 (same for SWMU 62); PF ¶¶ 649, 654 (same for the interim groundwater corrective actions); Ex. 10, Paredes Decl. (Exxon's standard protocol includes an alternatives analysis).

Second and as discussed above, these activities were conducted under the oversight, and with the approval, of state agencies. In fact, many of the activities, including the interim groundwater corrective actions, were conducted pursuant to Agreed Orders entered with the state, PF ¶¶ 591, 608, 626, 645—the same Agreed Orders that this Court previously held "fully resolved" Exxon's liability for cleanup costs at the Baytown site. *Exxon I*, 108 F. Supp. 3d at 511; *see also Niagara Mohawk*, 596 F.3d at 137 ("It would be bizarre indeed if a PRP's

[39] *See also* PF ¶ 585 (state reviewed, commented on, and ultimately approved work done at the Outfall Canals and Velasco Street Ditch); PF ¶ 599 (same for SWMU 60); PF ¶ 616 (same for SWMU 62); PF ¶ 636 (same for the refinery plume areas); PF ¶ 652 (same for Tankfarm 3000); PF ¶ 672 (same for WMA-1). In fact, in some instances the Government expert Mr. Wozniak agreed that Exxon's actions (for instance, at the Outfall Canals) "included appropriate evaluation of the regulatory standards and action limits and were consistent with the NCP requirements for consideration of ARARs." Ex. 18, Wozniak 2017 Rpt. at 82 (Outfall Canals), 90 (SWMUs 60 and 62), 92 (WMA-1).

[40] *See also* PF ¶¶ 572–73, 580 (describing investigatory and assessment work conducted at the Outfall Canals and Velasco Street Ditch); PF ¶¶ 589, 585 (same for SWMU 60); PF ¶¶ 606, 608, 612 (same for SWMU 62); PF ¶¶ 623, 632 (same for the Refinery Plume Areas); PF ¶¶ 642–43, 649 (same for Tankfarm 3000 Area); PF ¶¶ 660–61, 668 (same for WMA-1).

settlement with a state entitled it to seek contribution under § 113(f)(3)(B), but its actions taken in executing that settlement disqualified the settlor from employing the statute to recoup a portion of its expenses.").

Third, Exxon substantially complied with the public participation provisions of the 1990 NCP. *See* 40 C.F.R. §§ 300.155(c), 300.400(c)(4), 300.415(n), 300.700(c)(6). For instance, Exxon (with the oversight and approval of the state agency), published public notice of the proposed response actions related to these activities.[41]

In any event and as discussed above, the state agency was heavily involved in the cleanup of the Outfall Canals and Velasco Street Ditch, the areas of groundwater contamination, and SWMUs 60 and 62. Such involvement by the state effectively fulfills the 1990 NCP's public participation requirement because the state is representing the views of the public. *See, e.g.*, *Bedford Affiliates*, 156 F.3d at 428 ("Such extensive involvement of a government agency charged with the protection of the public environmental interest is an effective substitute for public comment. Where a state agency responsible for overseeing remediation of hazardous wastes give comprehensive input, and the private parties involved act pursuant to those instructions, the state participation may fulfill the public participation requirement.").[42]

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[41] *See* PF ¶ 584 (Outfall Canals and Velasco Street Ditch); PF ¶ 601 (SWMU 60); PF ¶ 618 (SWMU 62); PF ¶ 637 (Refinery Plume Areas); PF ¶ 655 (Tankfarm 3000 Area); PF ¶ 675 (WMA-1). In several instances, a comment period was provided and no comments were received. *See* PF ¶ 584 (Outfall Canals and Velasco Street Ditch); PF ¶ 618 (SWMU 62); PF ¶ 637 (Refinery Plume Areas); PF ¶ 675 (WMA-1).

[42] For similar reasons, if the "purpose-based" approach applies to assessing Exxon's compliance with the NCP's public participation requirement, Exxon has met that standard. A Texas district court, in assessing whether a private party substantially complied with the 1990 NCP public participation requirements, identified two key purposes of the public participation requirement: (1) to ensure that cleanups performed without government supervision are conducted in an environmentally responsible manner, and (2) to ensure that PRPs and foreseeably affected parties can represent their interests. Exxon fulfilled both purposes of the public participation requirement. First, it has conducted the removal activities under the oversight, and with the

Finally, many NCP provisions do not apply to investigations such as the RCRA and FOA investigations. *See, e.g., Vine Street I*, 460 F. Supp. 2d at 759 ("The type of preliminary investigatory and monitoring costs Vine Street has incurred are recoverable irrespective of the NCP's public participation requirements. The detailed NCP provisions governing other response actions cannot reasonably be applied to preliminary monitoring evaluation of a release of hazardous substances."). With respect to any provisions that might possibly apply, Mr. Johnson concluded that the FOA and RCRA investigations were consistent with the NCP. *See* Ex. 4, Att. C, S. Johnson 2016 Rpt. at 83–84. First, the investigations complied with Section 300.150 because Exxon required its contractors to comply with Exxon's established and written occupational and safety requirements. PF ¶¶ 684, 704; Ex. 11, Gagnon Decl. Second, these activities included preliminary investigations and/or site inspections, appropriate sampling and quality assurance plans, and development of information to characterize the site and develop potential cleanup alternatives, PF ¶¶ 679, 697, and therefore met the evaluation and investigative requirements of Section 300.410 and 300.415. Ex. 4, Att. C, S. Johnson 2016 Rpt. at 83. Third, Exxon created and maintained sufficient documentation of these activities, as required by Section 300.160. *See* Ex. 4, Att. C, S. Johnson 2016 Rpt. at 84 n.285 (listing documentation); *see also* Section II, *infra* (discussing the cost documentation maintained related to Exxon's removal activities).

In sum, all of the activities conducted by Exxon at the Baytown facility under the 1990 NCP substantially complied with the technical requirements of the NCP, including the ARARs,

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approval of, the state agency—so its cleanup was, in fact, conducted with substantial government oversight. Second, and similarly, the foreseeably affected parties in this case were the Texas and Louisiana state agencies, who participated in and oversaw the cleanup activities. *See* Ex. 4, Att. C, S. Johnson 2016 Rpt. at 26. Moreover, Exxon provided notice to the Government once it was identified as a PRP for both sites. Compl. ¶ 30 (No. 4:10-cv-2386 ECF No. 1, March 29, 2010).

and where appropriate also met the public participation requirements.

(e) Actions Subject to the 1990 NCP at Baton Rouge Were Conducted Consistent with the NCP.

The primary removal activities conducted at Baton Rouge under the 1990 NCP were investigatory:[43] the RCRA Facility Investigation, and the Maryland Tank Farm Investigation. As noted above, most 1990 NCP requirements, including most notably the public participation requirements, do not apply at the investigation stage. Mr. Johnson nevertheless determined that these activities substantially complied with all potentially applicable NCP requirements for investigations. Ex. 4, Att. C, S. Johnson 2016 Rpt. at 115–16.[44]

4. Exxon's Removal Actions Under the 1990 NCP Resulted in "CERCLA-Quality" Cleanups.

A private party's actions are consistent with the 1990 NCP if they substantially comply with the relevant NCP provisions discussed in Section I.C.3, *supra*, and "result[] in a CERCLA-quality cleanup." 40 C.F.R. § 300.700(c)(3)(i). EPA clarified in the preamble to the 1990 NCP that a response actions is "CERCLA-quality" if it meets the following five criteria: (1) the action

[43] Because activities at the Old Silt Pond, Rice Paddy Landfarm, and Shallow Fill Zone continued under the 1990 NCP (although the removal actions were all selected earlier), Mr. Johnson also undertook an evaluation of these units under the 1990 NCP and concluded they substantially complied with all potentially applicable technical requirements. *See* Ex. 4, Att. C, S. Johnson 2016 Rpt. at 94–115 (also noting that while the public participation requirements were not applicable since the actions had been selected pre-1990, Exxon nevertheless undertook public notice and solicited public comments in several instances).

[44] Specifically, Mr. Johnson found that: (1) the investigations complied with Section 300.150 because Exxon required its contractors to comply with Exxon's established and written occupational and safety requirements, PF ¶ 776; (2) these activities included preliminary investigations and/or site inspections, utilized appropriate sampling and quality assurance plans, and developed information to characterize the site and formulate potential cleanup alternatives, PF ¶¶ 771–73, and therefore met the evaluation and investigative requirements of Sections 300.410 and 300.415, Ex. 4, Att. C, S. Johnson 2016 Rpt. at 115–16; and (3) Exxon created and maintained sufficient documentation of these activities, as required by Section 300.160. *See id.* at 116 n.436 (listing documentation); *see also* Section II, *infra* (discussing the cost documentation maintained related to Exxon's removal activities).

is protective of human health and the environment, *see* 42 U.S.C. § 9621(b)(1); (2) the action utilizes permanent solutions and alternative treatment technologies and resource recovery to the maximum extent practicable, *see id.*; (3) the action is cost effective, *see id.*; (4) the action attains ARARs (for private parties, any requirements of applicable law), *see* 42 U.S.C. § 121(d)(4); 40 C.F.R. § 300.700(c)(5)(iv); and (5) the action provides for meaningful public participation, *see* 42 U.S.C. § 9617. 55 Fed. Reg. at 8793.

Section I.C.3, *supra*, has already demonstrated that Exxon's actions under the 1990 NCP attained the ARARs and provided meaningful public participation. Based on his review of the cleanup reports and the extensive oversight of the state, Mr. Johnson also concluded that Exxon's cleanups under the 1990 NCP were protective of human health and the environment, utilized appropriate technological approaches, and were cost effective. *See* Ex. 4, Att. C, S. Johnson 2016 Rpt. at 58 (Outfall Canals/Velasco Street Ditch), 65 (Refinery Plume Areas), 72 (Tankfarm 3000), 80 (WMA-1), 93 (SWMUs 60 and 62).[45]

Accordingly, all of Exxon's removal activities at the claimed cleanup units at the Baytown and Baton Rouge Facilities are consistent with the NCP, as required by CERCLA Section 107(a)(4), and its associated costs are properly recoverable under CERCLA. Exxon's documentation of its costs is discussed in the following section.

II. Exxon's Costs Are Substantiated and Accurately Accounted For.

Exxon has substantiated, with copious documentation, all of its claimed costs related to response actions at the Baytown and Baton Rouge Facilities, and has therefore "accurately

[45] Mr. Johnson did not make this determination for actions still in the investigation stage, because on its face the requirement to conduct CERCLA-quality cleanups applies only to "cleanups." For removal actions selected prior to the 1990 NCP that were still ongoing after the 1990 NCP came into effect, however, Mr. Johnson did opine that the actions resulted in a CERCLA-quality cleanup. *See* Ex. 4, Att. C, S. Johnson 2016 Rpt. at 50 (South Landfarm), 99 (Shallow Fill Zone), 107 (Old Silt Pond), 115 (Rice Paddy Landfarm).

accounted" for its costs as required by the NCP.[46] In fact, Exxon has far surpassed what is required by the "accurate accounting" standard. Specifically:

- Every single one of Exxon's claimed costs is documented by an internal accounting record generated in Exxon's accounting system and, in most cases, other supplementary documentation. The precise amount of documentation varies slightly by cost item, but every single cost item is supported by acceptable business records.

- In fact, 82% of Exxon's claimed costs at Baytown, and 80% of Exxon's claimed costs at Baton Rouge, are supported by an invoice, proof of payment record, and an accounting record. Even the Government's expert agrees that this level of documentation is sufficient.

- Moreover, approximately 90% of Exxon's claimed costs at Baytown and Baton Rouge are supported by an accounting record and at least one other document (i.e., either an invoice or a proof of payment record).

- For only approximately 10% of all claimed costs, Exxon is relying on an internal accounting record as evidence that the cost was incurred and paid for in relation to a response action. Exxon has ample evidence demonstrating that these accounting records are reliable and can be used to prove this small additional subset of costs.

As a result, Exxon requests a determination by this Court that all of its claimed costs related to response actions at the Baytown and Baton Rouge Facilities are accurately accounted for and therefore substantiated pursuant to the NCP.

A. The NCP's Accurate Accounting Requirement Is a Flexible Standard That Only Requires Proof That the Costs Were Incurred and Paid for in Relation to a Response Action

The NCP requires that private parties seeking CERCLA cost recovery keep an "accurate accounting of . . . costs incurred for response actions." 40 C.F.R. §§ 300.160, 300.700; *see also W.R. Grace & Co.*, 280 F. Supp. 2d at 1180.

The NCP does not specify any further requirements as to the nature or amount of documentation or other evidence required to show an "accurate accounting" of costs. Accordingly, courts consistently rule that the accurate accounting provision is a flexible standard

[46] 40 C.F.R. §§ 300.160, 300.700(c)(5)(ii).

that "does not establish prescriptive standards for the content of cost documents" and "does not impose any additional documentation requirements . . . beyond what is sufficient to persuade the court that the costs have been proven by a preponderance of the evidence." *W.R. Grace*, 280 F. Supp. 2d at 1179–80; *see also Roosevelt Irrigation Dist. v. Salt River Project Agric. & Power Dist.*, No. 2:10-cv-290, 2017 WL 2721439, at * 12 (D. Ariz. March 14, 2017).

As discussed in the following sections, Exxon has provided copious documentation of its response costs at the Baytown and Baton Rouge Facilities, and has easily met the "accurate accounting" standard.

B. Summary of Incurred Costs

The cleanup actions for which Exxon is seeking cost recovery are described in Section I, *supra*. In total, Exxon is seeking the Government's allocable share of a total of $**71,241,753.00** in costs related to Baytown response actions with a wartime nexus and a total of **$28,984,814.00** in costs related to Baton Rouge response actions with a wartime nexus.[47] A full breakdown of these costs by category is available in Table 8; *see also* PF ¶¶ 788, 795.

These cost totals reflect only costs expended to investigate and clean up waste units with a nexus to the wartime period. That is, Exxon has incurred additional amounts related to response actions at both Facilities, but has already excluded any costs without a wartime nexus,[48] and in fact, Mr. Johnson reviewed those costs to ensure that all identified costs were indeed properly recoverable. Ex. 4, Att. B, S. Johnson 2014 Rpt. at 19–20. A more detailed breakdown of costs by specific cleanup unit is provided in Table 9 (for Baytown) and Table 10 (for Baton Rouge); *see also* PF ¶¶ 789, 796. The substantial documentary support for Exxon's past costs is

[47] These amounts include prejudgment interest, which is recoverable under CERCLA. 42 U.S.C. § 9607(a).

[48] *See* PF ¶¶ 462–531 for a discussion of which units have a wartime nexus and how that determination was made.

discussed below.

Further, the total costs presented above are actually conservative because Exxon is not seeking any internal labor costs related to the response actions. Accordingly, Exxon is only seeking a subset of costs that it could, legally, claim from the Government under CERCLA.

C. Exxon Has a Reliable Accounting System That Supports its Accurate Accounting of Costs

As repeated throughout this section: every single one of Exxon's claimed costs are supported by some form of documentation. For the vast majority of Exxon's claimed costs, Exxon has supplied multiple forms of documentation (i.e., an invoice, a proof of payment record, and/or an accounting record). *See* PF ¶¶ 829–36; Figure 3, Cost Documentation Chart. For a small subset of costs (approximately 10%), Exxon is using accounting records alone to substantiate these items. *Id.* These records are generated from Exxon's accounting systems, described below, and Exxon fully relies on these accounting records as part of its own business operations to track costs and payments. PF ¶ 807.

These cost accounting records, even standing alone, are sufficient proof that Exxon incurred and paid the claimed costs. Various internal and external controls demonstrate that these accounting records are reliable and accurate—and accordingly, sufficient evidence that Exxon incurred and paid these costs. Further, Mr. Paul Ficca, after a thorough review of Exxon's records, concluded that there were no unexplained discrepancies identified in these records, and therefore, could be relied on to substantiate Exxon's claimed costs. PF ¶¶ 813–14.

1. Summary of Exxon accounting systems

Exxon has utilized several different accounting systems from 1985 to the present to accurately track its costs and payments. First, prior to 1997 Exxon employed a Unified Financial System ("UFS"), which was a mainframe accounting system that tracked payables and

accounting data. Second, after 1997 Exxon employed a series of SAP-based accounting systems. From 1997 to 2001, Exxon used the Alpha SAP System. Alpha later merged with the Everest SAP system, which Exxon used from 2001 to 2011. In 2010, Exxon transitioned over to the North American Stripes accounting system—another SAP-based accounting system. PF ¶ 808.

Third, in the mid-1990s Exxon sued some of its insurance carriers for cleanup costs incurred at thousands of sites across the country, including Baytown and Baton Rouge (the North American Coverage Case, or "NACC"). As a result of this litigation, Exxon generated some additional cost records for Baytown and Baton Rouge. PF ¶ 822. According to Exxon's expert Mr. Ficca, "[t]hese NACC cost records have been examined against available concurrent Exxon accounting records, invoices, and proof of payment and accurately reflect those costs incurred and paid for[.]" PF ¶ 825. Based on Mr. Ficca's professional assessment, he concluded that he could rely on the NACC cost records to "provide one level of substantiation for investigation and response costs." PF ¶ 824; *see also* PF ¶ 826 (Mr. E.J. Janik agreeing that "[t]he information that is contained in the NACC database, to the degree I talked about, appears accurate").

The accounting systems generated financial records that typically show the invoice amount, invoice date, payment date, and project number or accounting code, and also frequently provide check number and vendor information. PF ¶¶ 809, 823. Accordingly, these records provide sufficient evidence as to the amount of a cost item and the dates it was incurred and paid.

Further, the accounting records provided sufficient information, in conjunction in some instances with assistance from Exxon personnel, to determine for what project the cost was incurred. That is, the accounting system had project codes that related to the cleanups and/or investigations related to cleanup units that are the subject of this litigation. PF ¶¶ 809, 810. Mr. Ficca worked with Exxon personnel to identify which project codes were associated with

cleanup costs at units with a wartime nexus. At Baytown, these project codes were generally specific enough to identify individual cleanup projects or phases such that all costs billed to one code could be determined to be related to cleanup of a specific unit. PF ¶ 810. At Baton Rouge, these project codes were referred to as "cost centers." Many "cost centers" did include both recoverable and non-recoverable costs (i.e., costs related to a different unit or costs unrelated to cleanup), so Messrs. Ficca and Johnson worked with Exxon personnel and also reviewed vendor invoices, scopes of work, and other cleanup-related documents to identify which costs were only cleanup costs related to units with a wartime nexus. PF ¶¶ 811–12.

2. Exxon Can Rely on its Internal Accounting System Records as Proof That the Costs Were Incurred and Paid for Because the Accounting Systems Are Reliable

Exxon has provided multiple lines of evidence demonstrating that its internal accounting systems are reliable, and that these records provide sufficient proof—even in the absence of invoice and proof of payment records for a minority of specific cost items—that Exxon's claimed costs were incurred and paid for.

First, as discussed above the accounting systems provided sufficient information for Messrs. Ficca and Johnson to determine the amount of the cost and what each of the cost items were for—that is, what unit and activity each line item related to. PF ¶¶ 810–12.

Second, Mr. Ficca compared the accounting records to available invoices and proof of payment records, and found no unexplained discrepancies. PF ¶ 814. As noted above, Exxon had accounting records, proof of payment records, and invoices for over 80% of all claimed costs, which means that Mr. Ficca had an ample record with which to verify the accuracy of the accounting records, and Mr. Ficca was able to confirm that the amounts recorded accurately reflected the invoiced and paid amounts. Reliance on the accounting records to support the small percentage (10%) of claimed costs that only had accounting records is therefore justified.

Third, various external controls and audit systems provide other indicia of reliability. As a publicly traded company, Exxon is subject to regulation by the Securities and Exchange Commission, the Federal Trade Commission, and other regulatory bodies that regulate financial reporting and other disclosures. PF ¶ 815. For instance, Exxon is audited annually by PricewaterhouseCoopers ("PWC") and for every year since at least 1993, PWC has issued an opinion that "Exxon's financial reporting was in conformity with generally accepted accounting principles and Exxon maintained effective internal control over its financial reporting." PF ¶ 816. Similarly, Exxon's management conducts an annual review that further confirms that Exxon has effective internal control over financial reporting. PF ¶ 817.

Fourth, Exxon employed various internal measures to ensure that invoices were correctly paid and posted to the proper cost code. PF ¶¶ 817–20. These internal measures included conducting periodic assessments of the accounting systems and subjecting all invoices to two levels of review prior to approval. PF ¶ 818. Fifth, based on the evidence above, multiple experts for Exxon concluded that Exxon's accounting systems were reliable. PF ¶¶ 813, 821.

Finally, courts have generally found SAP-based accounting systems to be reliable. *See, e.g.*, *Sacramento Mun. Util. Dist. v. United States*, 109 Fed. Cl. 660, 684 (2013), *vacated on other grounds by* 566 F. App'x 985 (Fed. Cir. 2014) ("The evidence proffered by SMUD establishes that it recorded costs using the same SAP accounting system that the court credited as reliable in *SMUD III*.") (emphasis added).

In sum, the reliability of Exxon's accounting systems is supported by ample evidence, and the accounting records provide proof that the 10% of costs for which Exxon does not have other cost documentation were actually incurred and paid.

D. Exxon Has Accurately Accounted for and Substantiated its Costs at Baytown.

Exxon has incurred approximately $51 million in past cleanup costs related to units with

a wartime nexus at Baytown through December 2014. Of those costs, 82% are supported by an accounting record, proof of payment, and an invoice. An additional 9% are supported by an accounting record and either a proof of payment record or an invoice, and the remaining 9% are supported by an accounting record. *See* Figure 3, Cost Documentation Chart; Table 9, Baytown Cost Breakdown; *see also* PF ¶¶ 829–32. These summaries of cost support are based on extensive review and compilation of costs by Mr. Ficca. *See* PF ¶¶ 798–99, 832.

In short, documentation supports every single one of Exxon's claimed costs. Further, Exxon has three levels of documentation for 82% of claimed costs, which is an extremely high percentage given the fact that the costs were incurred over the course of three decades. As noted above, the NCP supplies a flexible standard of proof for the "accurate accounting" of costs and so this level of documentation is not required—but certainly meets the "accurate accounting" standard by any definition. Not even the Government's expert, Mr. Janik, disputes that costs supported by both proof of payment and an invoice are recoverable in this case.[49]

The remaining 18% of costs are similarly substantiated under the "accurate accounting" standard. All of these costs are supported by documentation, and as discussed in Section II.C, *supra*, a reliable accounting system, and approximately half of this remaining 18% of costs are documented not just by an accounting record but also by an invoice or proof of payment.

[49] For a minority of these Baytown costs, Mr. Janik disputes that Exxon has, in fact, provided an invoice. His dispute lies with certain records from the "Evaluated Receipt Settlement," or "ERS" program, which Exxon used in place of invoices in some instances to substantiate some more recent cost items. Exxon used these ERS records because "ERS is a procedure for paying a supplier without receiving a paper invoice." PF ¶ 803 (emphasis added). The ERS records generated by Exxon's internal accounting system serve as a substitute for invoices because they provide the same information—the cost code information, vendor name, invoice clearing number, amount, and discount base. PF ¶ 806. Thus, the copies of the electronic ERS records from Exxon's internal accounting system were provided to the Government in place of an invoice to substantiate certain cost items because no paper invoice was ever generated and the ERS record contains substantially the same information as an invoice would. This particular dispute is not an issue for any Baton Rouge costs.

Further, Exxon has produced voluminous cleanup documents and descriptions of the work that was performed at Baytown, providing further evidence that the related cleanup costs were incurred. PF ¶ 828. Since the NCP does not require that any specific document be presented for a cost to be recoverable, and since Exxon has submitted copious documentation proving that all of its claimed costs were incurred and paid for, all of Exxon's claimed costs related to Baytown have been accurately accounted for.[50]

E. Exxon Has Accurately Accounted for and Substantiated its Costs at Baton Rouge.

Exxon has incurred approximately $26 million in past cleanup costs related to units with a wartime nexus at Baton Rouge through December 2014. Of those costs, 80% are supported by an accounting record, proof of payment, and an invoice. An additional 9% are supported by an accounting record and either a proof of payment record or an invoice, and the remaining 11% are supported by an accounting record. *See* Figure 3, Cost Documentation Chart; Table 10, Baton Rouge Cost Breakdown; *see also* PF ¶¶ 833–36. As with Baytown, these summaries of cost support are based on extensive review and compilation of costs by Mr. Ficca. PF ¶¶ 798–99, 836. For the same reasons as discussed in connection with the Baytown costs, Exxon's documentation of these costs meets the accurate accounting standard.[51]

III. The Court Should Adopt an Allocation Methodology Which is Based on a Production-Oriented Surrogate, Fully Recognizes the Government's Degree of Involvement and Reflects Key Equitable Factors.

In its Phase 1 decision, the Court stated that "[a]fter liability is established, a court allocates fault 'using such equitable factors as the court determines are appropriate'," *Exxon I*,

[50] Contrary to the case law, Mr. Janik claims that every cost item must be supported by an invoice as well as a proof of payment, and indeed, he opines that all costs—even for invoices below $50—must be supported with all of this documentation.

[51] As at Baytown, Exxon has also submitted voluminous cleanup reports and related documents detailing the actual cleanup work performed at Baton Rouge and providing additional evidence that the costs were incurred. *See* PF ¶ 828.

108 F. Supp. 3d at 534 (quoting 42 U.S.C. § 9613(f)(1)), and referred to the "Gore Factors"—as well as the "Torres Factors"—as a basis for determining the equitable allocation.[52] As part of its Phase 1 decision, the Court also broadly defined what constituted the "facility" for purposes of CERCLA at both Sites. According to the Court's decision, "concluding that the Plancors and refineries at each site are one unified facility would subject the government to liability for the refineries regardless of whether the government actually operated them." *Id.* at 516–17.

As the Court suggested in its Phase 1 decision, Exxon is re-urging the allocation arguments that it first raised in Phase 1. *Id.* at 535. Exxon's proposed allocation methodology is designed to follow the Court's direction and just as suggested in the Court's decision as well as in *Lockheed*, apply responsibility across the entire sites at both Baytown and Baton Rouge. This approach is appropriate here since both plants were operated in an integrated manner to produce maximum quantities of avgas and many other war products[53] as required by the Government for the war effort. The Government essentially controlled the production operations at both Sites to mandate maximum production of war products even though the Government knew that this would result in substantial increases in waste generation that could not be adequately managed by the existing facilities, and generally denied any improvements to these facilities until after the war. *See, e.g.*, *Shell Oil I*, 294 F.3d at 1050; *Cadillac Fairview*, 299 F.3d at 1023; *Lockheed*, 35 F. Supp. 3d at 162; *TDY*, 872 F.3d at 1009-10.

Proper allocation in this case rests on several fundamental factors. First, any equitable

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[52] In fact, the Court also noted that courts often consider other factors similar to the factors outlined in the *Lockheed* decision in making this determination. *Exxon I*, 108 F. Supp.3d at 534.

[53] As noted above, Exxon's claim relates to the production of all war products at both sites during the wartime period; it covers the production of not only 100-octane avgas, but also 87- and 91-octane avgas, avgas components, toluene for TNT production, synthetic rubber, military all-purpose gasoline, residual fuel oil, kerosene, military lubricating oils, Navy diesel fuel and fuel oil, and other war products. PF ¶¶ 92–96, 109–114, 120–22, 130–41.

allocation should be based on a "production-based" approach, rather than a time-based approach, since "production-based" methods much more realistically represent the actual plant conditions. PF ¶¶ 348-52; *see, e.g.*, *New York State Elec. & Gas Corp. v. FirstEnergy Corp.*, 808 F. Supp. 2d 417, 530–31 (N.D.N.Y. 2011) ("*NYSEG*") (court used production-based approach for CERCLA equitable allocation), *aff'd in part & rev'd in part*, 766 F.3d 212 (2d Cir. 2014). Experts for both parties have agreed that "production," particularly the crude processing rate of a refinery, can be used as a surrogate for waste. PF ¶¶ 100, 348–52.

Second, a proper allocation must reflect the Government's degree of involvement in controlling plant operations during the critical wartime period. *See, e.g.*, *Lockheed*, 35 F. Supp. 3d at 149 (court's equitable allocation took into account the Government's degree of control over plant operations, although noting that it did "not present the pervasive levels of control exhibited in *FMC* and other World War II cases"). Here, in this case the Government not only controlled the use of raw materials that were processed by the refineries, but effectively controlled the overall plant operations themselves.

And finally, as with other CERCLA cases, a proper allocation should reflect other key equitable factors in apportioning financial responsibility at both Sites. Additional critical factors here include: (1) the knowledge and acquiescence of the Government in the contaminating activities; (2) the implementation of far-reaching Government policies that prevented the installation of necessary pollution control equipment during WWII and resulted in continued pollution after the war; (3) "[t]he value of the contamination-causing activities in furthering the government's national defense efforts," *Exxon I*, 108 F. Supp. 3d at 535 (citing *Lockheed*, 35 F. Supp. 3d at 124); and (4) "'the parties' intent to allocate liability among themselves'." *Id.* (quoting *Halliburton Energy Servs., Inc. v. NL Indus.*, 648 F. Supp. 2d 840, 863 (S.D. Tex. 2009)

("*NL Indus.*")); *see Lockheed*, 35 F. Supp. 3d at 123–24; *Am. Int'l Specialty Lines Ins. Co. v. United States*, No. 09-10743, 2013 WL 135405, at *4–5 (C.D. Cal. Jan. 9, 2013) ("*ASLIC*"); *Cadillac Fairview*, 299 F.3d at 1028; *Shell Oil I*, 294 F.3d at 1049.[54]

A. Exxon's Proposed Allocation of Past and Future Response Costs at the Baytown and Baton Rouge Sites to the United States

Any allocation in this case should follow the traditional approach developed by Mr. Richard White, a long-standing allocation expert in CERCLA cases. Mr. White has used the typical CERCLA allocation methods; he first determined the amounts of waste generated at each respective plant during the years of operation, including the wartime years (this is referred to as the "intra-allocation" step of the process). To arrive at this determination, Mr. White used a "production-based" factor—in this case the crude oil throughput capacity of each plant—as a "surrogate" for the amount of waste generated per year; this is referred to as an "production-based" allocation approach.

Then, in the second step of the allocation process Mr. White determined each party's—

[54] At such a time as the Court determines the Government's equitable allocation for past costs, a declaratory judgment as to the Government's specific and allocable share of future response costs is also ripe and appropriate. Declaratory judgment is ripe because Exxon has incurred, and will continue to incur, future cleanup costs related to the onshore SWMUs and other areas of contamination, as well as the offshore adjacent water bodies. PF ¶¶ 786, 790, 793. Further, a declaratory judgment is appropriate where, as here "the 'costs and time involved in relitigating issues as complex as these where new costs are incurred would be massive and wasteful'." *New York v. Solvent Chem. Co.*, 664 F.3d 22, 27 (2d Cir. 2011) (quoting *Boeing Co. v. Cascade Corp.*, 207 F.3d 1177, 1191 (9th Cir. 2000)). Once the Court has assigned the Government an equitable share for past costs, its allocable share for related future costs can be concurrently determined without any further factual development: "A case is generally ripe if any remaining questions are purely legal ones; conversely, a case is not ripe if further factual development is required." *Orix Credit Alliance, Inc. v. Wolfe*, 212 F.3d 891, 895 (5th Cir. 2000). Finally, the Court previously held that declaratory judgments under CERCLA may be granted for both Section 107 and Section 113 claims, and that in this case "Exxon's claim for a declaratory judgment that the United States is liable for its share of cleanup costs is ripe as to both its § 107(a) and § 113(f) claims." *Exxon I*, 108 F. Supp. 3d at 563. In similar cases, courts have granted declaratory judgments specifying allocable shares for future costs. *See, e.g.*, *Vine Street I*, 460 F. Supp. 2d at 767; *Lockheed*, 35 F. Supp. 3d at 154.

both the United States' and Exxon's—relative responsibility, or degree of involvement, in generating that waste for each particular year of plant operation. (This is referred to as the "inter-allocation" step.) Several key factors are relevant in determining the Government's degree of involvement here; namely, the Government (1) mandated maximum production of avgas and war products; (2) required the refineries to enter into the avgas contracts and comply with all directives; (3) controlled all significant plant activities, such as the use of crude oil and other raw materials, what products to make, how much and their quality, and the operation of all refinery processes; (4) effectively controlled waste-generating operations; and (5) denied approval of most waste handling improvements, despite its knowledge that the wartime operations generated increased wastes that overwhelmed the waste handling systems. Based on his evaluation, Mr. White has attributed to the United States a 40% degree of involvement for the refinery operations and a 60% degree of involvement for the Government-owned Plancors and BOW operations. This determination incorporates other key equitable factors, such as the knowledge and acquiescence of the Government in generating the wastes and the enormous benefits provided to our Nation by these wartime activities; the other two equitable factors—relating to the Government's stringent policies prohibiting the installation of needed pollution control equipment during the wartime period, and the contractual intentions of the Parties—should act to enlarge the Government's degree of involvement beyond this 40% baseline factor. For example, Mr. White has attributed 100% of the responsibility to the Government for each year in which Exxon supplied avgas under its wartime contract obligations, i.e., the 1942–45 wartime period. This is consistent with the Court of Federal Claims' prior ruling that the Government was fully responsible for cleanup costs incurred under these contracts. *Exxon*

Contract Decision, 101 Fed. Cl. at 577.[55, 56] And because of the Government's policies that acted to delay the construction of pollution equipment, the Government should assume responsibility beyond the wartime years themselves. A similar methodology has been applied for all of the units at both sites, i.e., land-based units, groundwater contamination areas, and adjacent surface water bodies. *See* Ex. 1, White Decl. (attaching Mr. White's Initial Allocation Rpt. (June 2012), Rebuttal Allocation Rpt. (Dec. 2012) and Supp. Allocation Rpt. (Jan. 2017)).

Following this approach, any allocation in this case should incorporate several key fundamental tenets, as follows.

B. Any Allocation Should Properly Reflect the Site-Specific Conditions.

A fundamental tenet of any allocation in this case is that it should reflect the key site-specific conditions throughout each refinery's period of operations. To properly address this factor, this allocation should: (1) reflect the integrated nature of the refinery and the Government-owned plants (including the Plancors and BOW); (2) use a "production-oriented" surrogate that accurately reflects waste generation as a result of petroleum operations; and (3) incorporate the significant process control and waste handling improvements that were installed after WWIII that greatly enhanced the oil conservation capabilities, pollution controls and overall environmental performance of both Facilities, as more fully described below.

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[55] As noted above, this case is currently stayed in the Court of Federal Claims.

[56] In Phase 1, Mr. White's opinion reflected the contractual intentions of the Parties based on the avgas wartime contracts. This is consistent with prior rulings of this Court as well as other relevant CERCLA jurisprudence. *See e.g.*, *NL Indus.*, 648 F. Supp. 2d at 876-84; *Cadillac Fairview*, 299 F.3d at 1028. For Phase 2, Mr. White's opinion did not again address this issue, since the Court of Federal Claims had the corresponding *Shell* case under consideration at that time. However, as this Court knows, the court in that case subsequently held the Government responsible for 100% of the costs incurred by Shell and the other oil companies in cleaning up wastes generated during the contract period. *Shell III*, 130 Fed. Cl. at 42 (2017). Here, in this case Exxon's proposed allocation outlined above should therefore properly incorporate this equitable factor in its methodology.

1. The Allocation Should Reflect the Integrated Nature of the Refinery and the Government Plants.

Consistent with the Court's Phase 1 decision, the proposed allocation should treat each Site as a single facility in order to accurately reflect, as the Court recognized, the close integration of the Government-owned Plancors and BOW operations with the refinery operations. *Exxon I*, 108 F. Supp. 3d at 519. In fact, this integration was a critical factor in enabling the Government to assume total control of the overall Baytown and Baton Rouge facility operations during the wartime period. The Government-owned plants were intentionally integrated with the refinery operations in order to maximize avgas and war products production; these integrated production operations resulted in the generation of more toxic wastes during WWII than ever before, and overwhelmed the plants' waste handling systems. These plants were fully integrated so that they (a) produced essential raw materials for the refinery operations; (b) relied on the refinery's infrastructure for necessary utilities and other operational support; and (c) used the refinery waste processing systems to handle the disposal of their wastes.

First, as the Court has already recognized, these plants were specifically sited so that they could provide essential raw materials to each other. For example, the Baytown refinery supplied the BOW with crude-sourced naphtha for its production of nitration grade toluene necessary for TNT production, and the BOW supplied the refinery with its byproducts for use in avgas and war products production. PF ¶¶ 232, 305. The same strategy applied equally to the Baton Rouge facility. This refinery, for example, supplied one of the nearby Plancors—the Butyl Rubber Plancor—with raw materials, and this Plancor did likewise. PF ¶ 306. Numerous other examples of transferring raw materials back and forth between these plants exist. PF ¶¶ 302, 305–07.

Second, the Government also intentionally sited its plants in close proximity to the refineries in order to effectively take advantage of the refinery's infrastructure and reduce the

Government's need to build similar facilities. During the war, the Government's policy was to reduce Plancor construction "to the absolute minimum necessary for the war effort," PF ¶ 319, and was accomplished in part by relying on the refinery's storage tanks, pipelines, sewer systems, steam generating/distribution facilities, water supply, docks, roads and railroads at both facilities. PF ¶ 312. Perhaps most significant, these Government plants relied on the refinery's waste processing systems for handling their wastes and particularly the most toxic wastes generated by these operations. PF ¶¶ 234–35, 245, 252, 268, 276–77, 285-87, 294, 308–12, 370. This infrastructure eventually became a key source of the contamination throughout the plants; according to refinery waste processing expert Mr. Jere Johnson, "many of these infrastructure facilities, systems and types of equipment generated wastes or had spills and leaks resulting in wastes or contamination of soil, groundwater and surface waters and sediments." PF ¶ 312.

According to the Government's own wartime consultant Sheppard Powell, who was specifically retained in 1946 to conduct industrial waste audits of the Government facilities, "[m]any of these facilities were designed to meet only the minimum requirements because the more comprehensive programs in many instances could not be justified in the war emergency and the scarcity of critical materials," PF ¶ 322, and the facilities meeting only minimum requirements included the "industrial wastes treatment and disposal facilities." PF ¶¶ 322, 325. It was commonly recognized that the Government plants were poorly constructed; "[i]n common with many of the war-built facilities, the plants of the rubber program were constructed with the least possible expenditure in time, labor and money. As a natural consequence of this approach, adequate facilities for handling trade waste disposal were not, in all cases, provided."[57] PF ¶ 308.

[57] The equitable allocation should also reflect the fact that the Government arranged for the disposal or treatment of hazardous wastes generated by the Government-owned Hydrocodimer Plancor located within the Baytown refinery and is therefore subject to CERCLA "arranger"

The Government's strategy here was instrumental in achieving the Nation's goal to maximize the production of avgas and other necessary war products. Raw materials generated at the Government plants enabled the Baytown refinery to increase its 100-octane avgas production by 3,500% from 1940 to 1944; in fact, the Baytown and Baton Rouge refineries were two of only three refineries nationwide that produced over one billion gallons of 100-octane avgas during WWII. PF ¶¶ 89, 92–93, 103-04, 109-10, 305-06.

2. A Proper Equitable Allocation Should Use a "Production-Based" Approach.

It is important not only to recognize that the Government plants were intentionally integrated with the refinery operations during the war, but also to recognize that a "production" surrogate properly applies in this case. This approach most accurately reflects the actual operating conditions of the respective plants during their periods of operation and would therefore provide the proper basis for an equitable allocation.

Experts representing both parties agreed that production, particularly the crude processing rate of a refinery, can be used as a general proposition as a surrogate for waste. PF ¶¶ 100, 348–52. They noted that this represents the best approach to take into account the significant changes in the size, footprint and complexity of both plants during the wartime period. *Id.* Mr. Kipp, Exxon's expert on forensic waste issues, opined that the generation of wastes were directly proportional to production factors. PF ¶ 348. Exxon's other experts—Messrs. David Lerman and Johnson—also agreed with this proposition, PF ¶¶ 349–50; in fact,

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liability. 42 U.S.C. § 9607(a)(3). In its Phase 1 decision, the Court stated that it would rule on this issue in Phase 2, and the parties should address whether the Government's actions at this Plancor should subject it to CERCLA "arranger" liability under the Fifth Circuit's recent decision in *Vine Street II*, 776 F.3d 312. *Exxon I*, 108 F. Supp. 3d at 530 n.34. The Government knew that its Hydrocodimer Plancor generated hazardous oily wastewaters and intentionally arranged for their treatment and disposal in the refinery's waste systems and units. PF ¶¶ 262, 268.

Mr. Johnson found that the "United States Environmental Protection Agency has recognized the relationship between waste quantities and crude capacity, although, waste reductions and waste processing improvements must also be taken into account." PF ¶ 349. Indeed, even the Government's own technical expert—Dr. James Kittrell—agreed. PF ¶ 351.

"Crude oil throughput capacity" is a typical "production-based" surrogate for accurately reflecting the amount of waste generated on an annual basis. Here, in this case the historical record confirms this proposition; when the crude oil throughput capacity had increased by almost 30% at Baton Rouge during WWII, PF ¶ 91, the U.S. Engineer Office determined that the increased crude oil processing for war products production had substantially increased waste generation that "overloaded the waste disposal system." PF ¶ 179.

This "production-based" approach is fully supported by the CERCLA case law. *See, e.g.*, *NYSEG*, 808 F. Supp. 2d at 530–31 (at manufactured gas plant ("MGP") sites court used historic gas production volumes as surrogate for waste to determine each party's allocated share of the costs); *Yankee Gas Servs. Co. v. UGI Utils.*, 852 F. Supp. 2d 229, 252–54 (D. Conn. 2012) ("*Yankee Gas*") (in allocating response costs between prior operators of MGP, the court found that "[t]he gas production ratios are tied more closely to operations than any of the other proposed allocation methods. As such, they have the virtue of corresponding, at least roughly, to the cause of the pollution"); *Coeur d'Alene Tribe v. Asarco Inc.*, 280 F. Supp. 2d 1094, 1121 (D. Idaho 2003) (the court based each party's share of the harm on its share of the tailings production from mining operations); *Horsehead Indus., Inc. v. St. Joe Minerals Corp.*, No. 94-c-98-B, 1996 WL 33415778 at *8 (N.D. Okla. Apr. 2, 1996) (the allocation of cleanup costs at a former zinc smelter was primarily based upon annual horizontal retort smelter capacity applicable to each party).

3. Any Allocation Should Also Reflect the Significant, Post-War Plant-Level Process Control and Waste Handling Improvements Implemented at Both Facilities.

At the same time, in order to fully characterize actual plant conditions, a "production-based" allocation approach must recognize the significant process control and waste handling improvements that were implemented after WWII to increase production efficiency, reduce waste generation and improve environmental performance at each facility. After Exxon implemented its post-war "effluent improvement programs," they achieved dramatic reductions in oil losses, the generation of sludge and slop oil, and the discharge of oil and other contaminants in the wastewaters, as well as an overall reduction in the volume of wastewater *per se*, as described below. Again, all of the experts in this case have repeatedly testified that both refineries implemented critical new processing improvements that led to the reduction of pollution at these plants after WWII. *See, e.g.*, PF ¶¶ 351, 373-416, 440-53.

During the war, the Government's edict was to produce avgas and other war products, and produce at full capacity. Exxon did that. The Government acted to design the Plancors in a similar fashion, geared only to maximize production but with minimal waste processing systems, PF ¶¶ 308, 322, 325; Ex. 2, Kipp Decl.; this was in accord with the Government's wartime policy which was "not to divert scarce resources from the war effort to stop the pollution," *Cadillac Fairview*, 299 F.3d at 1023. Following this policy, PAW and the WPB acted to deny numerous refiners' requests for approval to construct waste processing improvements at their refineries. PF ¶¶ 172–75. For example, when wartime pressures caused overloading of the waste systems at Baton Rouge, Exxon began to take meaningful action to construct a Master Separator; these pressures had led to massive fires in the Mississippi River. PF ¶¶ 176–80. PAW nevertheless denied Exxon's request to construct this Master Separator, despite a recommendation by the U.S. Engineer Office that it was the "key unit" necessary to prevent this

ongoing, critical pollution. *Id.* Once it became apparent that PAW would not approve the Master Separator, Exxon had to at least settle for installing the silt treating unit instead of nothing at all. PF ¶ 181. Similarly, PAW strictly adhered to this restrictive policy, and so denied Exxon's request to construct acid sludge waste burning facilities at the Baytown refinery as well. PF ¶ 182. As a Baytown refinery engineer acknowledged after WWII, "[d]uring the war it was not possible to devote much technical manpower to the problem of effluent improvement since it was obvious that saving surface waters was secondary to saving men." PF ¶ 174.

However, after the war, both facilities were freed from these wartime conditions and embarked on monumental new programs to significantly reduce pollution. At the Baytown refinery, for example, Exxon found that the existing waste processing systems were "badly overloaded" due to both the significant amounts of wastewaters generated by refinery operations—approximately 30 million gallons per day—and the undesirable effects of specific types of wastes in the wastewaters. PF ¶ 375.

Exxon's mantra was that the best way to reduce waste was by "attack[ing] it at the source." PF ¶ 376. To achieve its goal, Exxon embarked on a significant environmental control program at both refineries. From approximately 1947 to 1957, both the Baytown and Baton Rouge plants implemented a comprehensive process control program, PF ¶¶ 375–95, 440–49; many of the key process control improvements installed at the Baytown and Baton Rouge refineries are described in Table 11, Baytown Post-War Process Control Improvements. At the same time, both the Baytown and Baton Rouge refineries also installed new waste management controls after the war which led to significant reductions in pollution at both sites; many of these key waste handling improvements installed at the Baytown and Baton Rouge refineries are described in Table 12, Baytown Post-War Waste Handling Improvements. *See* Ex. 2, Kipp Decl.

The historical record amply shows the impacts of these improvements. For example, the LDAR program for both plants eliminated leaks and spills "occurring daily in thousands of places" as well as corrosion leaks that if left unabated, would have caused substantial additional oil releases into the sewers and separators and significant contamination of the subsurface soil and groundwater. PF ¶¶ 377–80. Other process controls "reduced the introduction of chemicals, sewage and other types of suspended solids into the wastewaters that promote slop or sludge generation," PF ¶ 443; absent these improvements, there would have been "much greater generation of separator slop with a higher and more toxic oil content [that] would cause the leaching of more oily waste into the subsurface soils underlying these separators and cause groundwater contamination." PF ¶ 389. Basically, the installation of these controls allowed Exxon to close out the older waste units that had been the source of much contamination during WWII. PF ¶¶ 365–68, 374, 387, 387–94, 476–77, 480–81, 484–85, 488–95; Ex. 2, Kipp Decl.

As for the waste management controls, the record shows that these controls acted to further reduce the discharge of pollution from both plants after the war. For example, a 1964 Baytown engineering report found that the three new preseparators that were installed in the 1950s timeframe effectively removed 90% of the oil content in the wastewaters at that refinery before these wastewaters were eventually discharged. PF ¶¶ 404, 406. In essence, these new waste controls had quite a pervasive effect on the total amount of contaminants actually discharged at both plants and virtually reduced the wastes handled, for example, at many of the key waste sites throughout each refinery. PF ¶¶ 389, 398–406, 411–15; Ex. 2, Kipp Decl.

Even after these controls were installed in the 1950s, Exxon continued to incorporate additional new improvements at both of its plants, such as, a biological aeration treatment system at the Baytown plant that removed any residual oil that might have been discharged into the

nearby water bodies and other key new systems in the 1960s timeframe. PF ¶¶ 396, 448–50. Finally, because of new federal laws, such as the Clean Water Act of 1972, 33 U.S.C. §§ 1251 *et. seq.*, and the Resource Conservation and Recovery Act of 1976, 42 U.S.C. §§ 6901 *et. seq.*, other key controls were eventually installed as well. PF ¶¶ 417–19, 454–56.

The post-war environmental performance improvements implemented at Baytown are summarized in Table 13, Baytown Post-War Environmental Improvements, and at Baton Rouge in Table 14, Baton Rouge Post-War Environmental Improvements, and any "production-based" allocation should be adjusted to reflect these improvements as noted in Table 15, Waste Processing Improvement Allocation Adjustments.[58, 59, 60]

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[58] According to expert testimony, there was approximately an overall 97% reduction in pollution at the Baytown refinery by the late 1950s; this has been confirmed by related plant data showing a reduction of approximately 97% of the total oil content in the process wastewaters at the Baytown plant, for example, had been reduced by the late 1950s, and that a total of almost 99% of the oil and other contaminants in the wastewater effluent at both plants had been reduced by the late 1960s. PF ¶¶ 415–16. According to Mr. Kipp, "tracking effluent quality [is] an attractive surrogate for understanding the environmental health of the facilities, because it is indicative of numerous refinery pollution mitigation activities affecting multiple waste streams from multiple units throughout the refineries. . . . Moreover, because the holistic pollution reduction efforts throughout the facilities following the war lead to the reduction in effluent concentrations, they serve as a reasonable surrogate for refinery-wide reduction in pollution impairment." PF ¶ 425. There is also "justifiable scientific logic" for considering the combined effect of both the 70% "Production Efficiencies" factor and the 90% "Pre-Separators Efficiencies" factor beginning in 1959 at the Baytown plant since "[t]he preseparators acted to increase pollution mitigation, and supplemented my review and analysis of the significant impact that process controls and other waste processing improvements (aside from the preseparators) achieved in oil loss and separator slop reduction and oil reduction in the wastewater effluent." PF ¶ 424. Adoption of these adjustment factors is indeed quite conservative since as a practical matter, these factors actually do not reflect the entire range of pollution controls implemented at these two Facilities for periods of time when quantitative data is unavailable, and do not fully reflect the synergistic effect of the process control and waste handling improvements that have been fully incorporated at both plants. PF ¶¶ 420–21, 424, 426, 457, 459–61; *see* Ex. 2, Kipp Decl.

[59] *See* Ex. 1, White Decl., Att. C, White 2017 Supp. Rpt. at 30–31.

[60] The use of these adjustment factors is consistent with the applicable CERCLA jurisprudence. *See, e.g.*, *Tosco Corp. v. Koch Industries*, 216 F.3d 886, 894 (10th Cir. 2000) (noting with approval the district court's determination that an allocation factor weighing against Koch was the improved waste disposal practices after Koch's involvement in refinery operations).

This data is far more compelling than the data found to support other equitable allocations under CERCLA. In many key cases, such as the recent Tenth Circuit decision in *Chevron Mining Inc. v. United States*, 863 F.3d 1261 (10th Cir. 2017) ("*Chevron Mining*"), the courts have recognized the significant challenges trying to fully recreate the historical record in CERCLA cases, pointing out some of the key issues in cases involving "older hazardous substance disposal," "'as eyewitness testimony or other direct evidence concerning specific waste disposal practices . . . during the 1940s—well before the enactment of environmental laws—is rarely available'." *Id.* at 1271 (quoting *Tosco*, 216 F.3d at 892).

In fact, in *Burlington Northern & Santa Fe Railway Co. v. United States*, 556 U.S. 599 (2009) ("*BNSF*"), the U.S. Supreme Court found that available historical data was sufficient to reasonably support a CERCLA apportionment of liability determination, even if a complete record could not be recreated. *Id.* at 616–18. In *BNSF*, the Supreme Court reversed and remanded the Ninth Circuit's decision in part by rejecting the Ninth Circuit's finding of "a lack of sufficient data to establish the precise proportion of contamination" on various portions of the site "and the rate of contamination" that had occurred decades earlier on the site. *Id.* at 617. In sum, the Supreme Court ruled that "despite these criticisms" by the Ninth Circuit regarding the sufficiency of the evidence to make precise determinations, "we conclude that the facts contained in the record reasonably supported the apportionment of liability." *Id.*; *see also Niagara Mohawk*, 596 F.3d at 131 ("there is nothing objectionable in basing findings solely on circumstantial evidence, especially where the passage of time has made direct evidence difficult or impossible to obtain").

C. <u>The Government Had an Overwhelming Degree of Involvement in the Wartime Operations at Both Refineries and Should Bear the Full Range of Responsibility for These Operations.</u>

As the Court noted in its Phase 1 decision, the types of controls exercised by a party at

the facility at issue are important in determining that party's responsibility as an equitable matter under CERCLA. *Exxon I*, 108 F. Supp. 3d at 519–20. In this case the types of controls exercised by the Government essentially amounted to the Government directly running and engaging in "'hands-on, day-to-day control of the management of'" both refineries during the wartime period, *id.* at 529 (quoting *United States v. Wash. State Dep't of Transp.*, No. 08-cv-5722, 2010 WL 5071277, at *7 (W.D. Wash. Dec. 7, 2010)), as described below.

This overwhelming degree of involvement should be reflected in the allocation, or what has been termed above the "inter-allocation" step of the process. *See* Section III.A. *supra.* In order to ensure the maximum production of avgas and other war products, the Government employed its unique and substantial wartime authorities not only to control the use of all raw materials at Exxon's two refineries, but also mandate that the refineries process all of their allotted crude oil and fully control product output. These actions essentially amounted to control over the entire plant operations of both facilities and the related disposal of waste.

According to the historical record, the Government dramatically changed its relationship with the petroleum industry during the wartime period, employing mandates, directives, orders, programs, telegrams and other measures to take over control of the industry and individual refineries. As part of this dramatic shift, PAW issued over 80 directives via the *Federal Register* imposing draconian controls over the industry and refinery operations. PF ¶¶ 37–38. In particular, Recommendation 8 directed Exxon and other refiners to "cease to use" various blending components, except for avgas production; Recommendation 16 provided PAW with full authority and control over virtually all aspects of refinery operations; and pursuant to Recommendations 16 and 33 and later Directive 77, PAW took nationwide control over the allocation and use of crude oil and other feedstocks to refineries. PF ¶¶ 44, 59. In fact, numerous

Oil & Gas Journal articles published contemporaneously during the wartime period categorized these actions as "revolutionary" changes imposed on the petroleum industry necessary to meet the Nation's wartime needs; a 1942 article characterized the Government's actions as "control by fiat." PF ¶ 72. Other contemporaneous articles reported that "[t]he Government took complete control of the aviation gasoline industry," PF ¶ 69, and that "the petroleum industry virtually turned over its facilities to the command of the Government." PF ¶¶ 71–72.

In fact, the Government used its control over the supply of crude oil—the lifeblood of a refinery—as a "big club" to compel each refinery to participate in the avgas program and comply with all PAW directives. According to PAW Chief Counsel J. Howard Marshall, either a refinery complied or PAW would shut it down by cutting off crude and materials supplies:[61]

> Q. So it - - if a refinery said, "We want to opt out of this 100 octane program. We want to go ahead and make regular gasoline," was that an option?
> A. No.
> Q. What - - what would PAW have done?
> A. We would have shut him down; take away his materials and supplies. You didn't have to take him to court, for which I was fortunate. I just took away his materials and priorities. Usually you couldn't operate a week without it. PF ¶ 78.

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[61] Marshall further testified as follows in his 1991 deposition:

> Q. [B]ut you said that PAW didn't use a club, but it had a big club, didn't it?
> A. It had a big one. It had all the powers of the President of the United States under the Second War Powers Act. And they are about as broad and comprehensive of any statute that was ever written, that I know about.
> Q. You said before, "and they knew it." What did you mean by that? Who was the "they"?
> A. Whoever wasn't going to do what we wanted them to do.
> Q. Was that something that was spoken of from time to time in your dealings?
> A. Oh, of course it was. I spoke of it. If I ran into a recalcitrant member of the business. I remember once I said to Colonel Drake, of the Gulf Oil Company, "Colonel, have you figured out how long your refiners can operate without priority on critical supplies?" PF ¶ 79.

The Government not only controlled the supply of refinery raw materials, it directed the refineries to "squeeze out the last barrel of product, regardless of commercial and economic considerations." PF ¶ 63. As part of this requirement, PAW demanded that each refinery capable of producing avgas enter into an avgas supply contract; in a Government letter, a PAW official categorized its contracting authority as follows: "P.A.W. insists that each company utilize all of its facilities to make 100 octane aviation gasoline to the extent of its ability to do so, and there is not in fact any freedom to make a choice between contracting and not contracting." PF ¶ 54.

During WWII, the Government took unprecedented actions to control the day-to-day plant operations at both the Baytown and Baton Rouge refineries. Treating each refinery "as units in one vast national refinery," PF ¶ 73, PAW "coordinated and supervised" their entire plant operations, PF ¶¶ 64, 68, effectively converting their operations to 100% war products production. PF ¶¶ 109–10. According to PAW Chief Counsel Marshall, PAW required absolute compliance because maximum avgas and war products production trumped all other considerations and consequences, including the substantial wastes generated and costs incurred. PF ¶¶ 169–71. The Baytown and Baton Rouge refineries had no choice but to comply; in fact, in 1944, a Government report noted that PAW had confirmed that the Baytown refinery was being operated "in exact accordance with P.A.W. instructions." PF ¶ 97.

Avgas cannot be produced in isolation and its production involves virtually all plant processes and operating units. Refinery operations expert Mr. Lerman emphasized that operating a refinery is like conducting an orchestra, and PAW took over the role of the "conductor" by controlling crude allocation, usage and processing rates, and other key plant-level decisions. PF ¶¶ 105–07. According to refinery expert Mr. John Beath, PAW's directives actually amounted to control over these refineries' operations themselves, requiring them to be operated in a closely

coordinated manner to produce war products,[62] and based on a Refinery Materials Flow Analysis that he developed, resulted in virtually 100% of these plants' output being these war products. PF ¶¶ 101–02. Forensic waste expert Mr. Kipp showed how the Government's control of the fundamental aspects of these refinery operations "was tantamount to control over waste generation and disposal," PF ¶ 115, and therefore, the Government should be viewed as playing a direct role in waste disposal. And cost causation expert Mr. Ficca concluded that the "root cause" of the oily wastes released at both refineries during WWII was the Government's directives, orders and other control measures. PF ¶¶ 506, 531. In fact, both Parties' technical experts agreed on the following: (1) avgas and the war products could not be produced in isolation, (2) *every barrel* and the *entire barrel* of crude oil had to be processed for avgas/war products production, (3) only a portion of each barrel of crude oil could be converted into avgas, and (4) this processing simultaneously produced numerous byproducts—many, if not most, were either additional war products or raw materials used to make these products—and the waste. PF ¶¶ 99–100, 105, 113. In *Shell*, Judge Braden recognized these fundamental technical findings and relied upon them in ruling against the Government. *Shell*, 130 Fed. Cl. at 21.

CERCLA jurisprudence has recognized the significance of Government involvement in equitable allocations, *see. e.g.*, *Lockheed*, 35 F. Supp. 3d at 162; *ASLIC*, 2013 WL 135405, at *4–5; *Cadillac Fairview*, 299 F.3d at 1028; *TDY*, 872 F.3d at 1009-10, particularly in refinery cases where the courts have assessed 100% of the costs or damages to the United States.[63] *See*

[62] Mr. Beath developed a color-coded, flow chart of the wartime Baton Rouge refinery to show how the Government controls resulted in virtually all process units being devoted to avgas production. PF ¶ 102; Figure 4, Baton Rouge War Products Flow Diagram.

[63] In its proposed allocation, the Government contends that avgas was merely a co-product and the production of avgas can be isolated from all other products, and therefore, proposes a "back-end" or "products-output" approach that limits the Government's responsibility to the relative production volume of avgas and several other products. This view is contrary to the historical

Shell, 130 Fed. Cl. at 36–37, 42; *United States v. Shell Oil Co.*, 13 F. Supp. 2d 1018, 1026, 1030 (C.D. Cal. 1998) ("*Shell Oil II*"), *aff'd*, 294 F.3d 1045; *Shell Oil Co. v. United States*, 86 Fed. Cl. 470 (2009) ("*Shell I*"). In *Shell*, Judge Braden ruled that the United States was responsible for all the "acid waste disposed of at the McColl Site [that] was caused by increased avgas production and need to maximize the manufacture and sale of non-avgas petroleum by-products." 130 Fed. Cl. at 36–37. Similarly, in *Shell Oil II*, Judge Kelleher found that all the sulphuric acid was necessary for avgas production—in essence, this acid was the limiting factor for avgas production just as the crude oil was the limiting factor for avgas production at Exxon's two refineries—and therefore, the United States was responsible for all of the spent sulfuric acid wastes generated by the refineries, despite the reuse of some of the acid to manufacture other products. 13 F. Supp. 2d at 1026. In *Shell I*, Judge Smith, who preceded Judge Braden as the presiding judge in the contract case, also found that the United States was responsible for 100% of the cleanup costs, even if some of the waste resulted from processing of non-avgas products, because the Government knew of the "close integration and connection between the production of avgas and the production of other petroleum products."[64] *Shell I*, 86 Fed. Cl. at 473.

D. In Addition to the Other Factors Identified Above, Any Allocation Must Incorporate Other Relevant Equitable Factors.

Again consistent with the Court's decision in Phase 1, Exxon submits that there are a

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and technical evidentiary record. In fact, the only court to consider an allocation from a "products-based" approach did so for a very different industry and declined to base the allocation solely on "end-products" alone, but instead doubled the defendant's allocated share due to its involvement in the overall plant operations themselves. *Weyerhaeuser Co. v. Koppers Co.*, 771 F. Supp. 1420, 1427 (D. Md. 1991).

[64] These three court decisions are also consistent with PAW's policy regarding the reimbursement of waste disposal costs. According to PAW General Counsel Marshall, the Government's policy to reimburse the refiners for all of their costs of avgas production extended to waste disposal costs; in deposition, on the question as to whether PAW would have paid for a refiner's disposition of acid sludge waste from avgas production, Marshall responded as follows: "Of course, we would. That was part of the program." PF ¶ 171.

number of additional critical equitable factors that the Court should consider in this case. They are: (1) the knowledge and acquiescence of the Government in the contaminating activities; (2) Government policies and directives that prevented or delayed the implementation of waste reduction measures; (3) the value of the contamination-causing activities to furthering the government's national defense efforts; and (4) the parties' intent to allocate liability among themselves in entering into the avgas contracts. These additional equitable factors have been widely-accepted and applied by numerous courts in CERCLA equitable allocations, and particularly in CERCLA claims brought against the United States. *See, e.g.*, *Exxon I*, 108 F. Supp. 3d at 535; *Lockheed*, 35 F. Supp. 3d at 123–24; *Cadillac Fairview*, 299 F.3d at 1028; *Shell Oil I*, 294 F.3d at 1049; *NL Indus.*, 648 F. Supp. 2d at 863; *Weyerhaeuser*, 771 F. Supp. at 1426-28.

First, as to the Government's knowledge and acquiescence, the record in this case shows that the Government knew that its orders and dictates would result in the generation of substantial amounts of wastes, much of which would overwhelm the existing handling systems at both plants. PF ¶¶ 114–17 Most of PAW's key positions and its primary committee—the Petroleum Industry War Council—were staffed with former oil company executives who were very knowledgeable about all aspects of refinery operations. PF ¶¶ 116, 160, 358. Mr. Kipp explained this in his testimony in the *Shell* case. PF ¶ 357. In fact, in his deposition testimony PAW General Counsel Marshall further testified that the PAW had ordered the maximum production of avgas and other war products during the war regardless of the waste consequences. PF ¶¶ 169–71. Consideration of this factor has been well recognized in other CERCLA equitable allocation cases. *See Lockheed*, 35 F. Supp. 3d at 150–51; *Weyerhaeuser*, 771 F. Supp. at 1423–24.

Second, as to the impacts of Government policies and directives during the war, the Government's wartime policy prohibited the diversion of resources for better pollution control; Government wartime-era consultant Sheppard Powell again acknowledged this in his Government report, stating:

> During this period it was recognized that some raw and partially processed materials were lost into waste waters leaving the plants, and that some of these substances were causing a stream pollution problem. However, personnel could not be diverted from more pressing objectives to study the complex problems related to waste prevention or treatment – nor could construction materials be secured for such purposes. PF ¶ 326.

Consistent with this policy, PAW ordered refineries to limit construction work to projects that increased war products production, and nothing for pollution-control improvements. PF ¶ 158.

The Baytown and Baton Rouge refineries were significantly impacted by this Government wartime policy. Twice—early in the war and again in 1944—PAW denied Exxon's request to construct a new Master Separator at the Baton Rouge refinery, even though the proposed Master Separator was the "key unit" necessary to prevent this pollution. PF ¶¶ 176–80. This did not amount to a one-time denial; this request affected virtually all of the waste disposal operations at the refinery for all of the wartime years. PAW similarly denied other formal requests, such as to construct needed facilities to burn acid sludge waste generated by avgas production at the Baytown refinery. PF ¶ 182.

The effect of the Government-compelled delays—increased waste generation and inadequate processing of these wastes—did not magically end on V-J Day because, despite Exxon's best efforts, the company could not rectify these problems merely overnight. Mr. Kipp explained that it was necessary to implement a systematic approach that took a number of years; for example, Exxon began to implement its effluent improvement program immediately after the war ended, but according to Mr. Kipp, "delays were necessary before installation of the Master

Separator" in 1952 "to allow for the systematic introduction of appropriate control processes in a timely manner, and thus the time delay inherent in the implementation of the Master Separator can be seen to be due to the wartime demands." PF ¶ 442. Mr. Kipp further concluded that "it would have been technically impossible to implement the requisite process improvements in an efficient manner after WWII concluded without the conduct of the systematic program devised by the refinery personnel." *Id.*; *see* Ex. 2, Kipp. Decl.

Consideration of this key factor also has been well recognized in other CERCLA equitable allocation cases. *See, e.g.*, *Cadillac Fairview*, 299 F.3d at 1022–23; *Shell Oil II*, 13 F. Supp. 2d at 1027; *Farmland Indus., Inc. v. Colo. & E. R.R. Co.*, 944 F. Supp. 1492, 1500–01 (D. Colo. 1996). In fact, in the *Shell Oil II* case, Judge Kelleher imposed 100% responsibility on the Government for the cleanup of wartime-related wastes specifically because of similar restrictive Government policies. 13 F. Supp. 2d at 1027.

Third, as to "[t]he value of the contamination-causing activities to furthering the government's national defense efforts, *Exxon I*, 108 F. Supp. 3d at 535 (citing *Lockheed*, 35 F. Supp. 3d at 123–24), the historical record chronicles how critical avgas and other petroleum war products were to winning the war, and these two refineries' unparalleled contributions to war products production. The Baytown and Baton Rouge refineries answered the call to arms, PF ¶¶ 93, 233, and this factor has again been well recognized in other CERCLA equitable allocation cases. *See, e.g.*, *Cadillac Fairview*, 299 F.3d at 1029 ("[t]his is a shocking case. The government is trying to take money from firms it conscripted for a critical part of a great war effort"); *Shell Oil I*, 294 F.3d at 1060 ("the cleanup costs are properly seen as part of the war effort for which the American public as a whole should pay"); *FMC*, 29 F.3d at 846 ("[A] cost of war on the United States, and thus on society as a whole [constitutes] a result which is neither untoward nor

inconsistent with the policy underlying CERCLA.").

Finally, the courts have long recognized the parties' intent to allocate liability among themselves—such as the contracts executed by the Parties for avgas production—is an equitable factor warranting full consideration. *See, e.g.*, *NL Indus.*, 648 F. Supp. 2d at 876–84; *Cadillac Fairview*, 299 F.3d at 1027–28. Here, this factor is quite significant; in a similar wartime case, the Court of Federal Claims just recently imposed a 100% reimbursement recovery on the Government for cleanup costs incurred in making wartime products. *Shell III*, 130 Fed. Cl. at 42.

CONCLUSION

For the foregoing reasons, Plaintiff Exxon Mobil Corporation requests that the Court enter partial summary judgment in favor of Plaintiff with respect to both cases.

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Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on this 15th day of December, 2017, I served the foregoing to Defendant United States of America via the Court's ECF service upon the following counsel for Defendant:

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